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It's better to SHAKE HANDS than to CLENCH FISTS

Parts Makers and Truck Manufacturers Must Work Out Problems on a Friendly Basis

By ALBERT G. METZ

THE above title is not without significance. Perhaps those for whom this article is intended will not appreciate its significance at this time, but we are certain that the situation herein discussed deserves prompt and decisive action on the part of both groups.

Many motor truck manufacturers are perturbed over the potential profits they are losing on replacement parts because of parts manufacturers operating parts depots. From a purely ethical standpoint the truck manufacturer may be justified, but from a practical business standpoint is he?

In an article which appeared in a recent issue of Motor Transport some interesting and authentic figures were presented which showed how and where one fleet owner purchased replacement parts—some from the dealer, some from the parts depots, some from manufacturers' branches—in fact anywhere where quality and price was satisfactory. Admittedly the practice is general. The sale of replacement parts as a business seems to belong to no one in particular. Every branch of retailing in the industry takes some part in it—and the best retail merchandiser is likely to get the most of it. Could the truck manufacturer control the sale of replacement parts if the parts depots did not exist? You are doubtful!

Could the parts depot sell all the replacements if the dealers and factory branches stopped handling them? It is equally unlikely. Selling and supplying replacement parts is a business of itself in which anyone may engage and succeed if he satisfactorily serves a community of buyers. The popular truck and the popular part is that one which gives the best transportation service at the least cost. Performance will determine this and only the "fittest" will survive.

SO the truck manufacturers and the parts makers would do well to work out a harmonious plan of action which would be equitable to all concerned including the buyers and operators of the vehicles.

They should work out this problem on a friendly basis. There should be more of a get-together spirit shown, for in no other way will both sides profit. First of all there must be co-ordination and harmony as to the **object** in back of handling parts. This is of prime importance. If guided by selfish motives nothing but conflict and losses need be expected.

This brings to mind the statement frequently made, "that if the sale of parts were controlled absolutely by the truck manufacturer through his distributors and dealers, it would automatically

force the owner to come to the dealer for service work." But with more independent repair shops than there are dealer's service stations, is it likely that the owners can be forced to go to the dealers for service work? The owner will go just where he darn pleases. He will patronize the shop that does the work the best and the cheapest. No owner will drive his truck from one end of the city to the other to have it repaired or serviced if satisfactory work may be had close by.

The fact that many dealers purchase parts from the parts depots and from replacement parts dealers indicates that the truck dealer also will buy his requirements where it is most convenient since he is not inclined to invest any more money in parts than he has to. This brings us to the original sale of the truck. If the dealer got all the profit that is legitimately coming to him from the original sale he could spend money on his service department and he could afford to keep a close contact with his customers. In analyzing this problem we should take into consideration another important fact, namely, that truck operating is no longer confined to big cities.

Who supplies the parts for the dealer in the small towns and in the country districts? The small town dealer and the independent repair shop depends on the distributor, the jobber and the parts supply depot in the big city for their parts. The small town dealer cannot afford to stock big quantities of parts. Certain specially designed parts he must buy from the distributor but he will buy other parts from whatever source he can get the best discount and the quickest service. Why should he buy the same article at a higher price? What does the truck manufacturer do when he buys his parts with which to build his truck?

TRUCK manufacturers must realize that they cannot hope to make the sale of parts cover the deficiencies of the sales department and sales policies. It can't be done. Instead of trying to sell parts for all the traffic will bear the price of parts should be so attractive that the volume and turnover will make the parts department self-supporting and profitable. No dealer or distributor can make a profit in parts unless he can do a fair volume. Parts depots are essential to the industry. What about the orphan trucks?

What's the solution?

Well—some day soon we will sell the trucks on performance values—sell transportation—not price and terms.

We will sell replacement parts at lowest prices consistent with proper selection of material and workmanship, through the widest possible method of distribution and with the least duplication of effort and expense.

We will design our trucks for the largest interchangeability of units compatible with individual engineering.

We will design, merchandise and service these vehicles so that they will perform the greatest and most efficient transportation usefulness at the least cost.

We will forget our competitor, except to help him, work to improve the industry at large and we will conduct our business with more understanding of the Golden Rule with full appreciation that what blesses one, blesses all. It does—it always has.

Rubber to be Reclaimed

Rubber manufacturers, encountering a sharp increase in the price of raw material, are preparing to increase the proportion of reclaimed rubber in their products.

Representatives of the trade have been in conference with Secretary Hoover on the general question of rubber supply, and it is expected further conferences among the manufacturers will be held.

"Three members of the Rubber Association, which represent the majority of American consumers, called upon me this week," says Secretary Hoover. "They discussed generally the burden thrust upon the American consumer by the 100 per cent rise in prices of imported crude rubber. No conclusions were arrived at.

"One thing seems evident, that is that the high price makes profitable the chemical reclamation of much larger amounts of used rubber for re-use, and previous experience indicates that our domestic consumption can be supplied up to 40 per cent from this source, instead of about 20 per cent, which maintains when new rubber is below 35 cents per pound.

"The manufacturing capacity for increased rubber reclamation is ample and under present price levels should contribute to reduce the volume of American imports."

The Commerce Department has been investigating the rubber situation, particularly with reference to the effects of restricted production in British colonial territory.

Truck Business on the Rise

Reports from many quarters are most indicative of ascending sales in the motor truck branch of the industries. The editor of **Automotive Industries** summarized the trend very pointedly in a recent editorial, reproduced herewith:

No phase of current automotive prosperity is more pleasing than that of the truck makers. Not only are the big producers experiencing good sales, but many of the smaller producers are reporting good acceleration in output. General business is pretty well stabilized and truck sales should not be affected by seasonal factors nearly so much as passenger car buying. So despite a lot of merchandising and financing questions which still are pressing for solution, the commercial car outlook seems brighter than it has been for some time.

How to Analyze Your Repair Department

The Service End of the Business Must be Maintained on a Business Footing

Is Flat Rate the Solution for Excessive Overhead?

By H. LIONEL WILLIAMS

REPAIR departments of dealer establishments are either a source of profit or a source of loss. Which they are depends upon a variety of factors, but usually it is found that the individual charged-for repair can be made to show a profit. There are those who will disagree with this statement. A dealer interviewed made the statement "that it was useless trying to make the service department pay, and he was doing as little with it as possible." He had analyzed his service costs and found that labor and overheads averaged $2.75 an hour. The local charge for labor, which is supposed to cover the overheads, was $1.50 an hour. He was obliged to charge the standard figure or get a reputation for excessive charges.

Here was a typical case of improperly organized service. The service department was not established on the same business-like footing as the sales department, otherwise the fact that his overheads and profit which he did not make totaled 175 per cent of his labor cost would have told that dealer that something was rotten in the State of Denmark. Unfortunately this is not an isolated case.

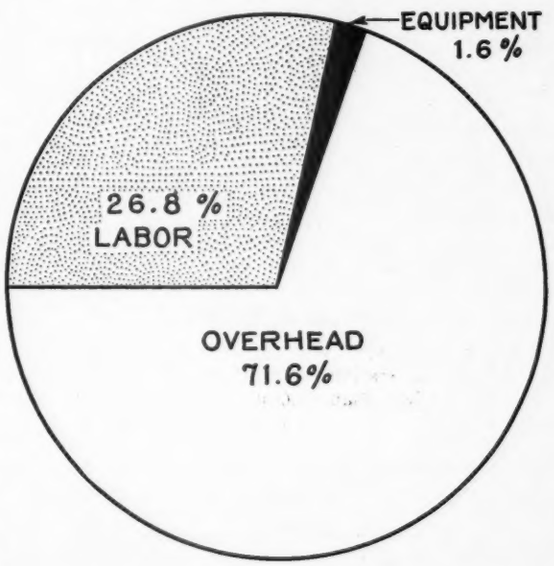
The estimated profits of the service department are often misplaced because the "free service" is not segregated from charged service. Except where there is a refund arrangement with the manufacturer, the so-called "free" service properly belongs to the selling side of the organization and should form part of the overheads to be deducted from the gross profits on sales of new trucks. If this were always done there **would be less of the profit given away to truck buyers.**

Repairs to trade-ins also come under this head, but it seems to be common practice to regard the repair department as a necessary evil which cannot be expected to make money anyway. In it are buried the mistakes of the selling department, and its leakages are regarded as inevitable.

Too Much Variation

EVERYWHERE dealers are complaining of uneconomic competition; of cut prices and inflated trade-in allowances. Many of them could go a long way toward meeting this competition by putting their repair and service departments on a business footing. Until each branch of activity is segregated its efficiency cannot be improved, so that this segregation is the first step toward the goal of increased profits by way of reduced costs.

Organization in the repair shop may make all the difference between success and failure. The most successful shop is that in which there is a nice balance between the investment in equipment and the labor employed. Too many mechanics and too few labor saving appliances is at the root of many repair department troubles, but too big a tool layout and too few men can be equally as costly.



Men can be laid off when work is slack, although the practice is to be deprecated, but tools continue to tie up capital that should be earning dividends.

So it is that both ends of the problem have to be watched. Granted that most shops are in a process of evolution, it is nevertheless astonishing to find the great variation in equipment and personnel prevalent among dealer repair establishments. For example, an analysis of the figures of a number of truck dealer service departments shows the annual revenue per truck serviced to vary from $9.70 to $500. These figures include parts sales, as most dealers lump the two departments together. This again does not give a true picture of the repair department. Then the personnel ranges from one extreme of four mechanics servicing 550 trucks to 34 mechanics to 300 trucks.

THE equipment side of the picture too shows similar discrepancies. One firm put in $10,000 worth of machine tool equipment and employs six men. The annual revenue from this department is only $10,000. On the other hand, another concern spent $5,000 on equipment and uses four to six men according to conditions. The revenue here is no less than $40,000 a year.

Obviously much must depend on the geographical location of the dealer's business, and it is impossible to lay down any hard and fast rule as to the most suitable proportions of labor to investment and both to revenue. What can be done, however, is to point out the necessity of carefully studying the situation so as to organize the individual repair departments along the most productive lines. Geographical location should certainly not account for the enormous difference shown.

For the purposes of accounting it is usual to group the part sales with the service accounts, and this is quite in order, especially as parts sales are in many cases becoming smaller and smaller as parts dealers increase in numbers. With the loss of so much of the profitable parts business the truck dealer is being forced to look for other means of carrying his service losses. This, in general, means an increase in the efficiency of the service department, for at the present stage of developments the service department cannot be done away with.

Time, Material and Overhead

THREE main items are involved in the service department accounting, viz., time, material and overhead. Material, in the form of parts, usually yields a fixed percentage of profit. Time, or labor is very often the most variable item, while overhead, once the department is definitely organized, is more or less fixed. The more efficient the shop is the greater will be the profits at a less cost to the customer. The cut in final cost can be effected by reducing the overheads and by getting more work for the same money from labor. To take these items in their given order, let us see what overhead is.

Presuming the parts stock is included, there is the interest on the investment in and depreciation of parts, tools and other equipment, compressed air, lighting, elevator service, rent, water and heating,

supervision, accounting and breakdown service. To reduce this charge to the lowest possible dimensions the parts and equipment details must be carefully watched. The parts stock should be capable of being gauged so as to ensure a turnover of at least twice a year. Often in the larger towns the turnover is four times or more per annum. Cut down the investment and increase the turnover is the policy here.

Machine tools should not only result **in increasing the capacity of the shop for work,** but the quality of the work done should **be on a higher scale than that of hand work.** The investment, however, must justify itself—it would be absurd to buy a cylinder grinding machine if there were only two or three cylinder grinding jobs to be done in a year. The trend, however, in dealer repair shops is to make the repair jobs more closely approximate the job as turned out by the manufacturer. The same limits are worked too, and the micrometer is taking the place of trial fitting.

$2,000 Required

OF the hundred dealers circularized as to their shop equipment, the smallest investment under this head was $750, and the largest $10,000. Both these may have been efficiently laid out, but it does not appear that any dealer selling 150 or more trucks a year can equip his service department for less than $2,000. An average tool layout for such a shop as this would be as follows:

Lathe	$500
Drill Press	250
Bench Grinder	100
Forcing Press	115
Truck Hoist	200
Portable Drill	50
Grease Bucket	15
Small Tools	75
Axle and Engine Stands	100
High Lift Jack	55
Extras for ditto	40
Wrecking Crane	95
Compressor, Air	400
Electric Motors (2)	250
Total Investment	$2245

Where much pneumatic tire work was done a tire changer, costing say $60, would be indispensable. No mention has been made of a smith's hearth or of a welding set. Some work is best farmed out and welding is very often dealt with in this manner. In any case there are very few shops that are fully equipped for all classes of work, and if they have one of these pieces of equipment they probably have not another, so that the total investment would average about the same.

The old-fashioned dealer, of course, refuses to spend this much money on time-saving appliances, on the score that time saved cannot be charged for to the customer. That this is a fallacy will be shown when the item of labor is discussed.

Overhead Variable

AS has already been remarked, overhead is certain to differ according to the locality of the dealers' premises and the class of business handled. Usually, however, it is found that wages differ in a somewhat similar proportion, so that the proportion of labor cost to overhead does not vary within the wide limits it otherwise would. The extent of the variation is usually from 35-65 to 40-60. That is to say, if a job is charged at $10, the mechanic's portion is from $3.50 to $4.00, the balance representing overheads plus a reasonable profit. This means that if the mechanic is paid at the rate of 75 cents an hour, the hour rate charge should be around $2.00.

If the service station has the $2,000 worth of equipment previously mentioned, this equipment will be responsible for something like 20 cents an hour of the charge. This figure is based upon a 20 per cent depreciation and 5 per cent interest on the investment.

Investigation into some of the typical larger truck dealer service stations in Michigan and Ohio, has shown that these figures are not far wrong. At these stations the investment in hand tools is about 1.5 per cent of the gross sales of service labor, parts and supplies for one year, while the machinery and equipment investment totals about 4.8 per cent. On this basis, a service station with gross sales of $30,000 a year, would have about $450 invested in hand tools and about $1,440 in machinery and shop equipment.

This latter figure, however, does not cover anything very extensive in the way of machine tools—probably little more than a drill press, grinder, portable electric drill, cylinder hone or reboring device, arbor press, hoist or chain fall, and perhaps, an air compressor and some very elementary wrecking equipment.

In the stations mentioned, the personnel varied from four to eight men, but the average was a little over five. Those with the larger staffs usually laid off one or two of the men when business was slack. The ratio of tool investment cost to labor cost was therefore about 5.3 per cent average.

Overhead the Big Item

OF the total operating cost therefore in such stations the overheads account for no less than 71.6 per cent, labor for 26.8 per cent and equipment for but 1.6 per cent.

Equipment, properly considered is of course an overhead, but as the foregoing shows it is by no means the preponderating item. In point of fact there are many parts stocks that represent a bigger percentage of waste in idle capital.

Presuming that the main items of the overhead have now been analyzed, and economies effected wherever possible, the next detail requiring attention is the labor. Where wages are paid on a time basis, whether hour, day or week, they constitute a charge which bears no reference to the amount of work done or the money earned for the station. Further than this the work of the department is subjected to fluctuation, so that while the men will have very little to do one day, the next day they may be called upon to work overtime at time-and-a-quarter.

Cut Out the Peak Business

One of the first steps to labor economy therefore is to as far as possible cut out the peak business and level up the demand as far as possible. Constant changes in the personnel due to the taking on and laying off of mechanics according to the demands of the business, are not productive of efficiency. The men who are so constantly changed are not usually of a very high calibre, and good mechanics who are let go can rarely be got back to an uncertain job.

There are two methods of combatting the slack periods, and doing away with the necessity of releasing men. One is to short-time the men by laying each one off in rotation for one or more days a week, or by shortening the working day.

The Remedy

The alternative to this is for the service manager to go out and get extra work so that the lay-off will be unnecessary. This method is much the more preferable and is being successfully done. It permits the men to earn full wages and thus keeps them contented.

Having the labor thus on a firm basis, the next problem is to make it as productive as possible. The wrong way to do this is to cut the wages and expect the same amount of work. In the truly efficient shop, the mechanics are well paid, the management gets a fair profit, and the customer gets a low-priced job well done. The only reasonable way therefore of rewarding the labor is to pay only for work done, and make it possible for the men to earn as much as they feel inclined to work for.

This brings us to the consideration of flat-rate repairing. First of all, there is a lot of misconception of the term flat-rate, and this in turn is responsible for the resultant prejudice which those who know nothing of the subject loudly declaim.

One of the immediate results of a properly-applied flat-rate system is the reduction of the selling price of the job to the customer. This is directly due to the increase of efficiency on the part of the mechanic who actually increases his hourly rate of earning. Because the returns depend upon the results, the workman does better work in a shorter time. He devises ways and means of saving time on jobs, so that cost of work is constantly on the downward trend. As an example, the cost of removing and assembling the timing gear plus the parts on one well-known truck was reduced from $72 to $38 after intensive study of the processes involved by the mechanics doing the work on the flat-rate basis.

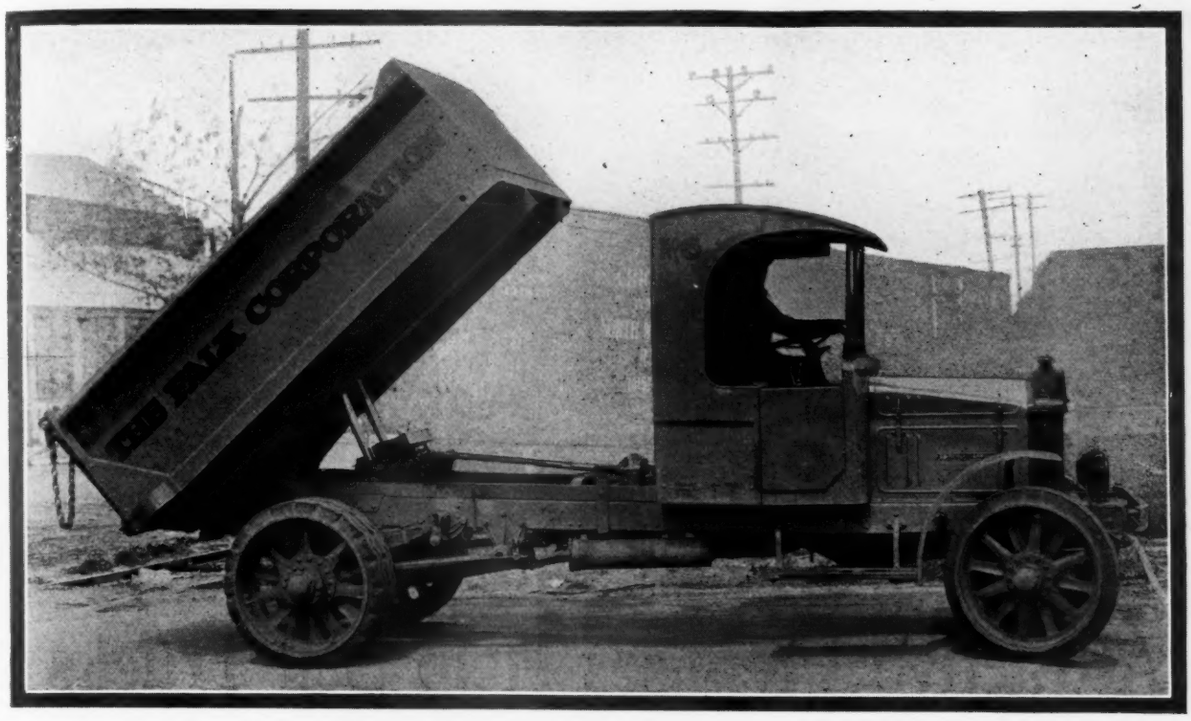
At the present stage of developments the flat-rate used in dealer establishments applies to labor only, with one or two exceptions where the contract price includes such miscellaneous supplies as screws, washers, cotters, oil, etc.

When labor is sold on a strictly hourly basis, the natural tendency is to put in as much time as the job will stand, and this explains the attitude of the dealer who considers the employment of shop equipment is useless extravagance.

The Flat-Rate System

THE first requisite of a successful flat-rate system is the establishment of a reliable paying rate schedule. This is based on the maximum time employed in

(Continued on page 13)



No More Wood!

—the Wheel's at the Bottom of It!

Wooden beams and columns are not used in the erection of modern buildings and bridges. Wood does not have the durability to compete with metal in such structures.

I-beams and other structural shapes are now employed in structural engineering. They are not too light and are not excessively heavy, yet have the strength and resiliency necessary to the proper functioning of great achievements of modern engineering.

Bethlehem Rolled Steel Truck Wheels are I-beams! Strength, resiliency and light weight, therefore, are inherent qualities in Bethlehem wheels. They are designed and built in such a manner that they combine the resiliency and light weight of wooden wheels with the great strength and durability of rolled steel.

BETHLEHEM STEEL COMPANY, GENERAL OFFICES: BETHLEHEM, PA.

Sales Offices in the following cities:

New York Boston Philadelphia Washington Pittsburgh Detroit St. Louis
Baltimore Atlanta Cleveland Cincinnati Buffalo Chicago San Francisco

BETHLEHEM

Rolled Steel Truck Wheels

Inviting Headquarters of the Steiner-Fahrenkrog Automobile Company, St. Louis, Mo.

Attractive Premises Help Sell Trucks

Here's an Example of a Well-Arranged Establishment. Service Entrance is on the Main Street

MUCH care and thought have been expended on the design and construction of the new premises for the Steiner - Fahrenkrog Automobile Co., of St. Louis, Mo. This company sells Reo cars and speed wagons, the latter forming about 40 per cent of their total annual sales.

Perhaps the outstanding features of the new building is that every department is designed with the idea of its being kept in such a position that it will be fit for public inspection at any time. The used car department for instance is in the service department section, but the service department is kept in such a clean and tidy condition at all times, that the surroundings in no way detract from the appearance of the vehicles.

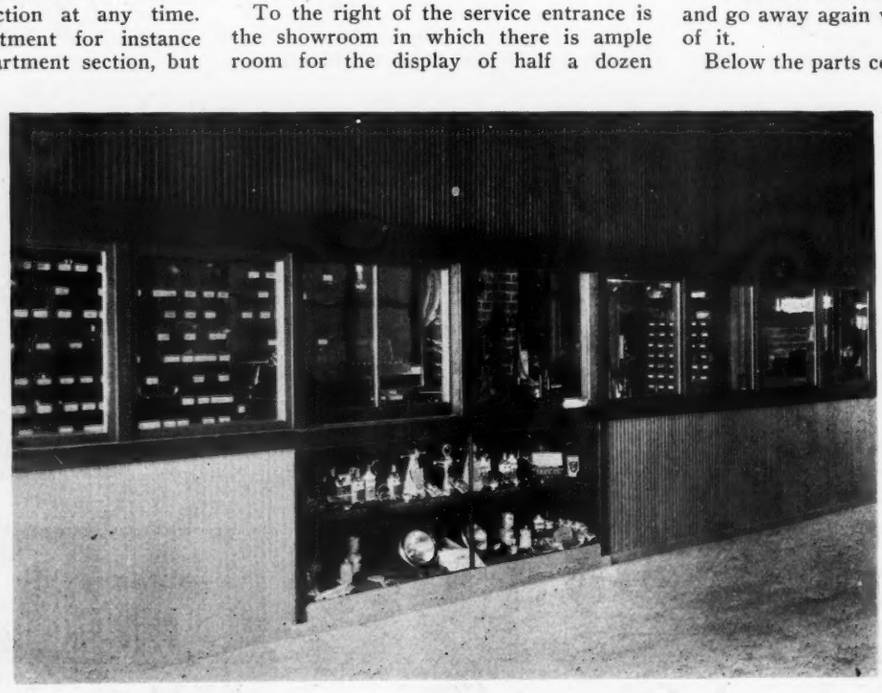
A feature which is pleasing to most customers is that the service entrance opens onto the main street, and is not down some dirty alley, as is so often the case. This naturally suggests that the vehicles in use are given as much consideration as the new ones.

Next to the service entrance is the parts department, which houses $10,000 worth of parts. The volume of the stock and the orderly way in which the parts are stored are clearly visible through the window, and this in itself is an advertisement. Incidentally, the large window makes this one of the lightest stockrooms we have seen.

To the right of the service entrance is the showroom in which there is ample room for the display of half a dozen cars. Speed wagons are however not usually displayed here but in a corner of the service department section where surplus new cars are stocked.

In the showroom are the desks of the executive staff, and the partitions have been so arranged that from this vantage point they can see across the service entrance and into the stockroom. Were it not for this feature it would be possible for some customer whom they wished to see to come into the service department and go away again without their knowing of it.

Below the parts counter, in the entrance to the service department, is an accessory display case which has already proved itself a useful additional source of profit.



Visibility of the Parts Stock Valuable Sales Asset

Back of showroom and parts department is the service department, which occupies about 13,000 square feet of floor space. This floor is divided into three sections, the largest being for the repairs and cleaning, the next for the used cars and trucks and the third for the new vehicle stock.

At the rear end of this room is the

The Open Showroom Permits Unobstructed Vision to the Service Entrance and Stockroom

At the rear end of this room is the wash rack on which a Curtis air-mist washer is installed. This equipment saves half to two-thirds the time required for washing down a truck and does not injure the paint. When required it can be used as a kerosene spray for cleaning off engines. The company have fixed a standard rate of $1.25 for this job and are rapidly getting their customers to have their engines cleaned as a precaution against fire and electrical troubles.

Altogether there is about $4,000 worth of shop equipment, including auto hoist, lathe, drill press, etc., the latter having independent motors so that line shafting is abolished.

All these things make for better service to the customer and increase the prestige of the company. Since opening their new premises, the company have had many truck owners call on them, some of them old customers and others prospects, all of which goes to show that the truck buyer does care what sort of a place houses the firm he deals with, apart from the status of the truck manufacturer.

As indicating the value they place on preventive maintenance, it is interesting to learn that the Steiner-Fahrenkrog company have in operation a service whereby they take care of the greasing and oiling of the speed wagons and cars for a fixed sum of $125 a year. For a single operation they charge $3.75, of course providing all the grease and oil, and while this is not a money-making scheme, it does prevent comebacks and creates the salesman's greatest asset—the satisfied customer.

How to Analyze Your Repair Department

(*Continued from page 10*)

each job after a study of the individual jobs for at least 20 times. The rate per hour for labor and overheads has, however, first to be determined, and a proper profit added, say 10 per cent. In determining these rates the total expenditure on **productive** labor for a given period, say 60 or 90 days, is taken, and called 100 per cent. The total overhead expense for the same period is taken and the percentage it bears to the 100 per cent for labor added to 100 per cent. Thus if the labor cost totals $1,000 and the overheads $2,000, the result is 100 per cent plus 200 per cent, or a sum of 300 per cent.

The average rate per hour paid the mechanics is then taken and multiplied by the 300 per cent, which gives the operating shop expense per hour. To this figure is added 10 per cent for profit, which gives the total charge per hour.

In the case cited, if the wage was 75 cents an hour, the operating expense would be three times that or $2.25. Ten per cent on that would give nearly $2.48, which would be the basic rate.

This figure multiplied by the maximum time employed on each job would give the flat rate for such jobs. If after that the mechanics find improved methods of doing the jobs and saving time, the dealer is so much more in pocket, and after having shared the saving with the mechanic he may be able to reduce the price to the truck user. The user is of course safeguarded on all these jobs by a ten-day guarantee, and if the work proves unsatisfactory during that period the mechanic has to make it good in his time.

On the time basis the proportion of profit is the same for the dealer with up-to-date equipment, clever mechanics, technical knowledge and skill, as for the man who has none of these things. The flat rate system enables the dealer to capitalize on these things.

AFTER all, in truck selling, it is as important to give the user cheap maintenance and operating cost as it is to give him a good truck in the first place. The opponents of the flat rate claim that the user who neglects his vehicles has to pay only as much as the men who keeps them in good condition, so that the cost of the extra work on the misused trucks has to be borne in part by the better class operator.

This is true only in a minor degree. In the first place, under a properly applied flat-rate system the total cost of any job is lower than when it is paid for on time, so that the better user benefits in any case. Secondly, the price paid for any commodity is higher than it would be if there were no such things as bad debts, and income tax could be reduced if everyone paid their due share. Some flat-rate operators minimize this possibility by inspecting their users' vehicles and seeing that they are properly cared for and lubricated, so that the general level of condition is higher and the repair costs lower.

There are at the present time a number of truck and truck parts manufacturers studying the adaptability of flat-rate repairing to their products, and it is hoped to make public their conclusions at an early date. In the meantime the problem before the truck dealers is not, can they hope to benefit by the flat-rate system of repairing, but can they afford to do without it? Admittedly it is not a panacea for all evils, but it is a decided step toward putting back the gilt on the gingerbread of truck merchandising by making the service end of the business self-supporting.

Itinerant Opera Company Uses Six-Wheel Parlor Coach to Cover Its Chautauqua Circuit

The Redpath Chautauqua of Chicago is presenting an elaborate production of DeKoven's Robin Hood and the members of the Valentine Opera Co. will be transported by a Safeway Six-wheeler to the following states: Georgia, South Carolina, North Carolina, Tennessee, Alabama, Florida, Illinois, Indiana, Michigan and Wisconsin. The tour will be about four months. In the selection of the vehicle comfort and ability to maintain strict schedules were the two main prerequisites considered.

Bring the Mountain to Mahomet!

That's What a Los Angeles Commercial Car Manager Did

He Made His Establishment Accessible to Busy Users

Service and Sales Branch of the Reo Motor Car Co. of California. Insert: J. W. Brown, Manager of the Commercial Car Division

ABOUT one year ago, J. W. Brown, manager of the commercial car division of the Reo Motor Car Co. of California which occupies a large, magnificent building in the central of the automobile retail district in Los Angeles, became convinced that it would be advantageous to have a branch establishment in the city's commercial district from which to sell and service Speedwagons exclusively.

Brown's line of reasoning was to the effect that many prospective users of delivery cars were so busy they would not take the time to drive three miles through the heart of the city to investigate Speedwagons and although a salesman always was willing to bring the car around it often was difficult to make an appointment convenient to the prospect. "They tell us they'll come around and look the car over but they don't come," Brown reported to his superiors.

Inspects Territory

After a delay such as usually accompanies propositions of this kind Brown was told to inspect the territory and see if a building in a desirable location was available. He did so and reported he had not found the building but had discovered an ideal site and knew a man who would erect the building. The site was on San Pedro Street, a main north and south artery in the exact center of that part of the city where commercial vehicles are most in demand. It was at a jog in 8th Street, and east and west thoroughfare, with the street leading right up to the curb line. The location met with official approval, the building was erected and Brown was told to vindicate the judgment the company had placed in him.

When the building was ready for opening, circular letters were sent to hundreds of users of light delivery trucks inviting them to come in and inspect the structure. They also were told that the building had been built and occupied for their convenience, a stock of parts would be carried which would prove ample to meet any requirement and thereby expedite repairs. Competent mechanics were put in the service department and everything was ready to go.

Convenience Draws Patronage

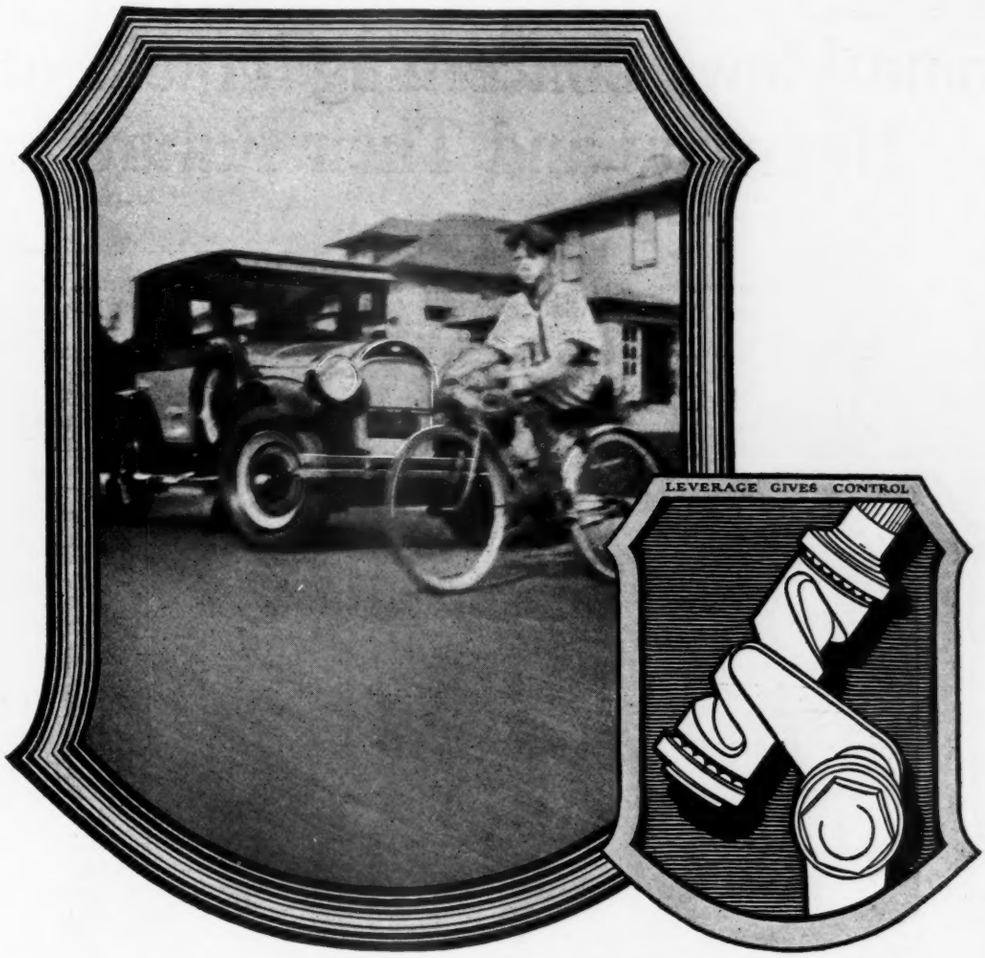
Time has proved Brown had the right hunch. This is the only exclusive commercial car branch of any firm in Los Angeles handling passenger automobiles of the same make. All truck service is done at the branch because it is most convenient to the largest number of Speedwagon owners. The location is only four blocks from the terminal market and union warehouse, the chief centers of truck activity in Los Angeles. It is conveniently located to practically all the wholesale houses, manufacturing concerns and the warehouse district.

The company employs eight Speedwagon salesmen. Four are detailed to the branch store and the other four to the headquarters building. The two selling organizations function independently as their assignments are permanent and floor days rotate at each place according to custom. Considerable sales rivalry has been built up and, from this, the company has benefitted greatly. Prospects visit each of the stores in about equal number but more new buyers go to the San Pedro Street branch. Many old customers, because of earlier acquaintance, return to the headquarters building but the branch store gradually is gaining in sales leadership. Because all service is done at the branch drivers are more familiar with that location and when these change employment, as happens not infrequently, they maintain the contact. Their influence with new employers sometimes results in Reo sales and nearly always this business comes to the branch, where night service may be obtained by appointment.

What started as an experiment and somewhat as a product of Brown's imagination has developed into a profitable enterprise for the Reo company. Other representatives of concerns that handle delivery cars and light trucks as a part of their automobile business are said at this time to be looking for locations in the district pioneered by Reo.

19,600 Buses Used by Consolidated Schools

Motor travel is playing a large part in the building up of consolidated rural schools in the United States. Throughout the country there is a tendency to combine one-room schools into large central buildings, providing transportation for the children who must travel some distance. 19,656 motor buses are used in this service, according to figures supplied to the National Automobile Chamber of Commerce by county superintendents. 1,424 consolidated schools were created in 1924. 470,533 children are transported by motor vehicles daily.



Across Your Pathway!

A PHANTOM flashes across your pathway .... heedless and ignorant of danger .... eyes filled with the visions of youth! Perhaps you *can't* stop .... only a *quick swerve* can avert disaster .... It is then that you appreciate more than ever the instant response, the ease and the control given you by the Ross Cam and Lever Steering Gear. Emergencies merely emphasize what Ross gives *all the time.*

ROSS GEAR AND TOOL COMPANY, *760 Heath Street,* Lafayette, Indiana

ROSS

CAM *and* LEVER STEERING GEARS

EASIER STEERING LESS ROAD SHOCK

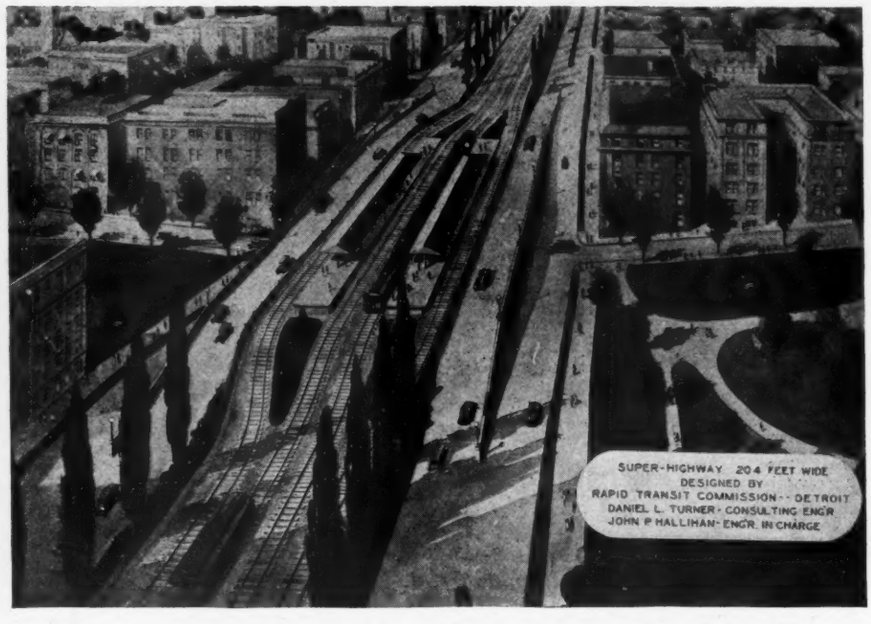
Some Views Concerning Trucks and Highways and Their Future

By T. J. HARRIS

THEY'RE at it again. The road-builders are stringing their pipe-lines and driving their grade stakes. Behind the mixers is a fair length of finished pavement and ahead is a long stretch of subgrade to be buried under a pavement slab by the time the Thanksgiving turkeys are ready for the block. It looks like a good year for roads—as good or better than 1924. Whether it will or not depends on a multitude of things, many of which are controlled by those in charge of the work, and some of which are beyond control, such as the weather, to mention one of the most common factors. And those who make, sell or drive trucks are hoping that this can be announced as the greatest road building year on record.

Since 1925 road-building looks pretty much like a repetition of 1924, or probably a little better, it might be interesting to briefly recount last year's progress in this light. The several states may change their totals, but the net results of the country at large is expected to be about the same.

More concrete pavements for the use of motor traffic was laid in the United States in 1924 than in any previous year. The total was 6,071 miles of roadway averaging eighteen feet in width. Added to the concrete roadway formerly in use, this provides nearly 32,000 miles of concrete pavement in the cities and states of the Union.


SUPER-HIGHWAY 204 FEET WIDE
DESIGNED BY
RAPID TRANSIT COMMISSION - DETROIT
DANIEL L. TURNER - CONSULTING ENGR.
JOHN P. HALLIHAN - ENGR. IN CHARGE
AT STATIONS
BETWEEN STATIONS

The Big City Traffic Problem Can Only be Solved by Radical Construction

Illinois in First Place

Illinois led all the states in concrete road construction with a total of 1,114 miles. Pennsylvania came next with 624 miles. Michigan was third with 576 miles.

New York, standing fourth on the list, placed under contract during the year 540 miles of concrete and 12 miles of other types of pavement, outside of macadam and gravel roads. The total actual construction amounted to 551 miles of concrete averaging 18 feet wide. Indiana came fifth with 384 miles, followed by Wisconsin with 269 miles.

North Carolina, with 247 miles, was seventh. It is interesting to note that, in following out its extensive good roads campaign, while 246 miles of concrete highway were completed, the contracts during the year aggregated 536 miles, and practically all of the remainder will be finished early this year.

Closely following North Carolina was Ohio, with 243 miles. The concrete sections ranged from five and even seven inches to nine and eleven inches in thickness. Next came California with 178 miles, of which one of the biggest projects is the fifty-six-food-wide Whittier Boulevard in Los Angeles County, built jointly by the county and the state, the section being seven inches concrete base and two inches asphaltic concrete top.

All States Show Increase

New Jersey took tenth place with 160 miles, closing the list of states completing concrete roadways during the year exceeding one hundred miles. Other states which showed an appreciable increase in this form of pavement over previous years were: Minnesota, 74 miles; Delaware, 63 miles; Washington, 50 miles, and Kentucky, 48 miles.

The 1924 concrete road building achievement exceeds by nearly one thousand miles the previous record of 1923, when five thousand one hundred miles were added to the concrete highways of the country.

Just what effect is the motor truck having on highway planning? Will it come to pass that finally the passenger and freight traffic on the highways will be segregated?

The indications point that way. Long ago we had signs on boulevards that permitted only passenger vehicles such as in parks and on boulevards. But there was something of the aesthetic in that ruling. The segregation of vehicles on the public roads will come because it will work to everyone's advantage, if that is done on certain roads. There is already sufficient truck traffic alone on a great number of the main roads to justify the road being turned over to that class of vehicle; but the passenger cars have no road of their own and are forced to use it. Along the main trunk lines that are connecting up the centers of population there will undoubtedly be concrete roads built parallel to those that are now in existence and as these parallel roads are built, it seems reasonable that the trucks will be directed to take one road and the passenger cars the other. In that way traffic will move forward at a more uniform rate of speed.

Roads a Real Need

It is being emphasized daily by actual service that America can not get along without the motor truck for the short haul. Present registration of 2,000,000 trucks, say highway authorities, will be doubled in a comparatively few years. We must have the highways—exclusive truck highways—to take full advantage of this latest development in transportation, or

the public stands to lose a good many millions through undeveloped natural resources, stifled trade, and a clogging of the wheels of distribution through the entire country. Any idea of legislating the truck off our highways has now been definitely discarded. Instead, all advanced communities are taking the position that they are performing a service of vital importance to the entire nation.

More Improved Roads Needed

THE general congestion on the highways is bad—very bad. In a very small way, we can work out our own salvation. As congestion gets to the point where there is no pleasure we resolve to stay off the heavily traveled roads with our passenger vehicle on certain days. But this is bad. The highway situation as it now exists is scarcely less serious than it was fifteen years ago when motor vehicles were coming into general use and roadbuilding had not yet begun. The car balked then; the roads are blocked now. Roads were unimproved and impassable then; now they are partly improved, and still impossible. Some look at the production of motor vehicles and say the saturation point has been reached. Perhaps the public is saturated with motor cars—or perhaps it is not, but the highways are, which means the same.

The motor truck needs heavy-duty roads. It is an easy matter to build them. No matter what the average maximum size of truck shall be, the road can be built to accommodate the load. If we study the history of railroad tracks, we find that they were being continually strengthened due to increasing loads.

And as the railroads united this country and scattered the population across it, the motor truck and the railroad, helping each other, will intensify the development. The railroad has capacity, speed and endurance but no flexibility. The team of draft horses hitched to a dray had elasticity—they could travel anywhere but they could pull only a small load at a slow speed for a short distance at a time. Small wonder then that the truck has found so much work, for it has the elasticity of the horse-drawn dray, is quite as tireless as the freight train. As for capacity—some of the roadbuilders who have seen gigantic trucks with heavy loads pounding to pieces the roads that were not built for such loads—they are quite willing to concede that the truck yields nothing to the freight car in the matter of capacity.

So with the capabilities and adaptability of the truck, no one was greatly surprised last winter when one of the eastern railroads announced its intention of abandoning a thousand miles of its branch lines and letting the country be served by trucks traveling the main highways. A long time previous, many railroad men had translated the handwriting on the wall to mean this very thing. In a way, there are regrets as there are always regrets when invested capital is showing a loss but it is in line of advancement and many railroads welcome the chance to be rid of what for years has been a losing investment.

Some much needed plans have been made to open up the traffic through cities. Detroit is the most conspicuous example and there they plan the super-highway which is described by its planning commission in the following extract from the Commission's report:

"All the services utilizing the super-highway—local and express motor traffic, local and express rapid transit trains—will operate on one level on the surface between stations. But the various travel lanes will be properly defined and related so that vehicles can travel through the local roadways into the express lane for rapid distance movement, and out again through the local roadway when approaching their destination. The operation in the express lane will be continuous. Vehicles will merge into and flow along with the stream and finally leave, but never cross it. It will represent the maximum of efficiency in motor vehicle operation. Wheel traffic cannot cross the rapid transit line at grade, but may pass under at the half-mile inter-sections, and likewise pedestrians may cross by means of overhead or underground passages where conditions warrant such crossings. At stations located every one-half mile apart, more or less, both express motor traffic lanes and rapid transit tracks will be raised sufficiently to pass over the cross streets.

Solving Intersection Tie-Ups

Local motor traffic lanes will meet the intersecting street at grade so that if they wish they may cross under the rapid transit and express motor traffic lanes at such points. Thus the rapid transit and express motor services will not be subjected to any crossing interferences. They can attain high speeds. This is a necessary and recognized characteristic of a rapid transit line. It should also be accepted as an essential feature of the motor traffic highways of the future."

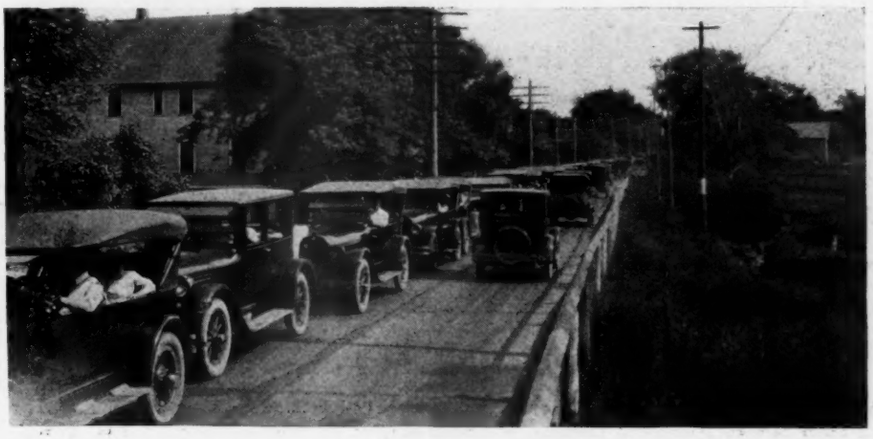
What can the motor truck industry do, more than it is now doing, to get paved roads? That is a question often asked. One thing they might do would be to advertise the need for pavement.

Roads Mean Sales

Lack of paved roads is the factor that more than any other is limiting the sale of motor vehicles. There is a vast territory of potential trade for the motor truck out in the mud-road country but the poor condition of the highways is running the cost of operation up to a point where it cannot compete successfully with the draft team and lumber wagon. If we acknowledge them, as we must, that roads are a great limiting factor for trucks what more effective program for America's "Motor Row" could be established than for truck manufacturers and dealers to start an aggressive campaign for the extention of the paved road system.

This is sales promotion in its most effective form. The motor industry uses thousands of columns of white space; its advertising dominates almost any newspaper or periodical you may chance to pick up, but it is only once in a blue moon that in these advertisements you will find a plea for more roads—a plea that would help break down the sales resistance. Such a plea need not dominate an advertisement; it might be only a slogan or a small editorial similar to those which has made John Wanmaker's advertising known through the English speaking world. It would take only a few agate lines and would mean the growing of construction on hundreds of miles of road which are now hanging in the balance.

This kind of sales promotion is not new. It has been producing results for a great many years. The railroads adopted it when their systems were built through unpeopled territory. They had to sell the wilderness to the people back East in order to sell transportation. The Burlington is now using the same method and is selling the Northwest; the Santa Fe has sold California to all the other states and the Eastern railroads are selling Florida climate in order that they may have buyers for the transportation which they provide. Outside the transportation field the phonograph people are selling the concerts of McCormick and Chaliapin in order that people will buy phonographs and records. One of the great knitting goods manufacturers is promoting swimming pools not so much from a philanthropic standpoint but because he must sell swimming pools before he can sell bathing suits.



The Average Road is Not Wide Enough

Service True Basis of Truck Sales

By LIONEL WILLIAMS

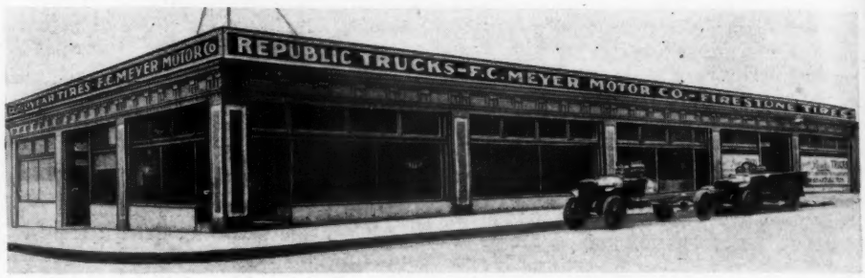
SELLING trucks today is selling transportation, and selling transportation means that you must not only supply your customer with the tool to do the job with, but see that he uses that tool right.

This is the theory upon which the F. C. Meyer Motor Co., distributors of Republic and Garford trucks in St. Louis, Mo., have operated for the past nine years. That is why their best live prospects are recommendations from old customers. Their service department is designed not only to put the vehicles on the road in the shortest possible time after a repair, but to so watch the vehicles in use that they are always kept in as good a condition as is possible the whole of the time.

Over the last nine years they have averaged 150 new truck sales per year, and for the last few years at least, probably ninety per cent of these have involved trades. They have therefore a considerable number of customers in and around St. Louis, and they aim to keep these customers sold by seeing that each one gets the fullest use out of his vehicles. This is how they do it.

Periodically an inspector calls on each of the truck users and examines the vehicles free of charge. The length of time between his visits varies, but he calls on every customer in turn and then starts at the top of the list again. This inspector travels in a car which carries a few small spares, valued at between $50 and $60. When he inspects a vehicle he makes a report in duplicate on a special form. Small matters he attends to himself and notes them on the form. Items requiring shop attention are indicated and the inspector endeavors to arrange for the vehicle to be released for the necessary length of time. One copy of this report goes to office and the other to the owner of the vehicles. If the inspector is unable to make arrangements for the vehicles to come in for treatment, a letter is sent from the office pointing out the trouble and the probable results of its neglect.

This system, as may be expected, is not universally popular with the customers, although most of them appreciate it, especially those having no maintenance department of their own. At any rate it insures a steady turnover in the parts department, helps the customer to get the fullest use out of his vehicles, increase the good-will proportionately, and maintains a high standard of efficiency in the fleets generally. Under this system the service department can fairly accurately gage the demands on its workshop, and prepare for overhauls some time ahead. Thus shop congestion is minimized, permitting of its most efficient operation at all times. The only big obstacle to overcome is initial customer resistance.



Attractive Headquarters of the F. C. Meyer Motor Co., Distributors of Republic and Garford Trucks in St. Louis, Mo.

FORM 115

INSPECTION REPORT Date_____ 19___

Name_____

Address_____

Phone No._____

Make of Car	Date last Inspection 19
Model	Speedometer Reading
	Total Mileage
Car No.	Mileage last Inspection
	Net Mileage Run in
License No.	Months Days

Items marked "A" required attention and were attended to. Items marked "S" will require Shop attention.

See that Car is thoroughly Greased and Oiled. Owner is to pay for all Oils, Grease and Materials.

MOTOR		Spark plugs		REAR AXLE	
Is motor tight in frame?		Wiring		Bearings	
Compression		STEERING GEAR		Are wheels in line?	
Do valves need grinding?		" " Connections		Condition of brakes	
Carbon		Is it being properly oiled?		SPRINGS	
Are timing gears noisy?		Is there too much lost motion?		Are clips tight?	
Piston Rings		SERVICE BRAKE		Do leaves need oiling?	
Connecting rod bearings		HAND BRAKE		GREASE CUPS	
Main bearings		FRONT AXLE		Are all cups filled?	
Push rods		How are wheel bearings		GENERATOR	
Is motor kept clean?		Are wheels in line?		Does it show proper charge?	
OILING SYSTEM		Is axle in line?		Chain tension	
Oil level		CLUTCH		STARTING MOTOR	
Pressure		Does it grab?		Condition	
Circulation		Does it slip?		BATTERY	
COOLING SYSTEM		Are the rollers greased?		Was it properly filled?	
Radiator		Is thrust bearing oiled?		Gravity test	
Pump		Propellor shaft bearing		TIRES	
Are connections tight?		Universal joints		Pressure	
Is fan being lubricated?		Are universal joints greased?		Front R L	
Is fan properly adjusted?		TRANSMISSION		Rear R L	
CARBURETOR ADJUSTMENT		Condition of gears		LIGHTS	
Carburator leak		Condition of bearings		Front	
Gasoline line		Condition of grease		Side	
IGNITION SYSTEM		DIFFERENTIAL		Rear	
Timer		Condition of gears			
Coil		Condition of grease			

Time Required_____ Hrs.

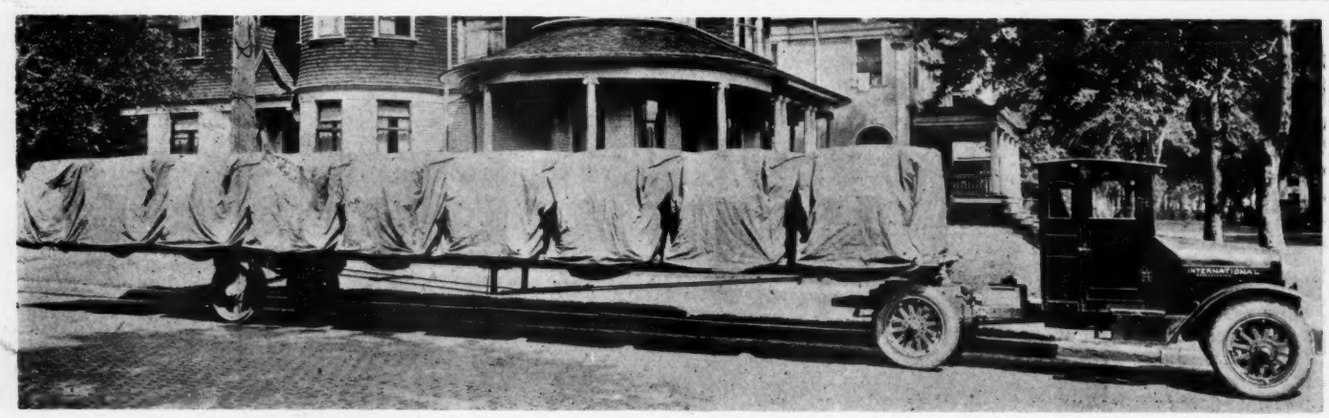
_____ Quarts Cylinder Oil
_____ Pounds Cup Grease
_____ Pounds Trans. Grease

_____ Mechanic

O. K._____ Foreman

If there are any additional notations or recommendations write them on the reverse side, and put an "X" here._____

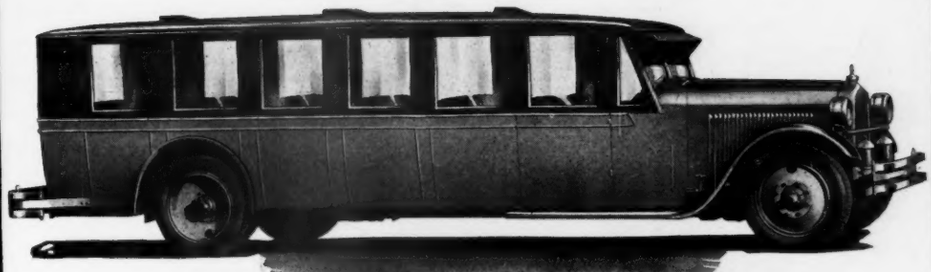
Items Requiring Attention Are Checked on This Chart. One Report Goes to the Office and the Other to the Owners.



International Motor Truck and 45-foot Semi-Trailer Engaged in a New Type of City to City Service

It is utilized to carry sedan bodies between Detroit and Cleveland, a distance of about 170 miles each way. It is on the road continually, night and day, hauling Ford bodies to Cleveland and Lincoln bodies from Cleveland to Detroit. Drivers are changed at Toledo. The outfit has a capacity of nine sedan bodies, the average load being 3 tons. The average speed is 25 miles an hour. The truck and trailer are owned by Edward Haugh of Toledo.

The Garford Parlor Car



"Pullman of the Highways"

Opportunity Knocks at Your Door

IMMEDIATELY motor coach patrons learn of a coach that affords them a vibrationless ride behind a powerful 6-cylinder engine, they patronize this coach and want no other. They know that when vibration is absent, riding comfort is enhanced. Then, they learn such coaches maintain regular schedules. They know they can depend on reaching their journey's end without delays occasioned by the need for roadside repairs. Patrons like to ride in clean, well-kept and well-painted motor coaches that not only are attractive to the eye, but rich and harmonious in color combination, fittings and upholstery.

The men who design and build Garford Motor Coaches are coach specialists who think and operate along coach lines with the advanced idea of building for coach requirements. The Garford Motor Coach is just as distinctive in the passenger transportation field as is the Garford Truck in freight transportation. Our vast production facilities are an assurance that additional motor coach units can be added to any fleet and keep those fleets uniform.

A broadened opportunity is knocking at the door of the passenger transportation merchandisers. Write for the booklet described below. It contains valuable information about advanced engineering of motor coaches.

A Postal Card Will Bring You This Book

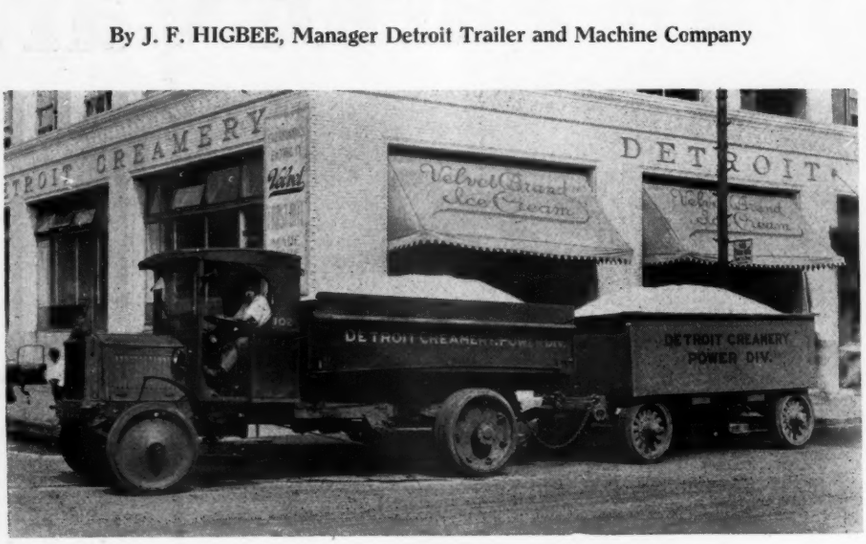
Interesting Information in It for Dealers and Operators

The Garford Motor Truck Company
LIMA, OHIO

TRUCKS—1 to 7½ TONS **COACHES—15 to 30 PASSENGERS**

Freeing the Truck From Its Loading-Platform Duties

By J. F. HIGBEE, Manager Detroit Trailer and Machine Company



Reduction of Idle Loading Time Increases Earnings

PROBABLY all of us have noticed, at one time or another, a number of delivery trucks lined up at the shipping platforms of a department store, a warehouse, railway terminal or other shipping point—standing idle during loading. We have seen, again and again, a motor truck standing idle, hour after hour, during loading or unloading its freight; a five to ten thousand dollar investment, "resting," earning no dividends during one-third to one-half its working day. Why?

An Unheard of Parallel

Suppose you were a large manufacturer, with a modern plant. Suppose the railroad upon which your plant is located were to deliver on your siding, some fine morning, a single box car or gondola car containing raw material. Perfectly natural and normal. But suppose the railroad should leave its engine attached to that box car, on your siding, all the while you unload that car, waiting to pull the empty away? Absurd and impossible, you say? Yet that would be an exact parallel to the things we see every day in motor truck operation.

There has been an awakening in some quarters to this vitally important question of expensive loading time; but the awakening has not gone far enough, nor has it penetrated to a fraction of the number of truck operators to whom such knowledge would mean immediate and sizable profits.

What the railroad knew, years ago, the truck operator has learned only in a relatively few isolated instances. Basically, it comes down to a realization that what each is selling is transportation; that the most expensive single item for equipment in each case is the motive power; and that, with heavy fixed charges on this item piling up relentlessly every minute, each minute this motive power is idle constitutes a dead loss.

Loading Time is Wasted Time

FORGETTING the railroad, except as an example, let us see what this means in actual figures to an operator of motor trucks. For illustration, consider a small coal yard, making deliveries in five-ton to two-ton lots, by means of a five-ton truck. The truck leaves the yard in the morning. It travels for forty minutes to its first destination (I am citing an actual example) and stops to drop two tons of coal for a householder; requiring an hour in the process. It proceeds to another residence, ten minutes travel; unloads three tons there in an hour and twenty minutes; makes the forty-five minute run, empty, back to the yard; where it stands another thirty minutes before being loaded and ready to start on another trip. This truck, in actual operation, can make from two to four trips per day—depending upon size of order, distance to haul, and unloading facilities. It averages an hour and fifty minutes per day performing its dividend-earning function of transporting coal; approximately an hour and forty minutes daily in returning empty to the yard, and the balance of its time is spent in loading and unloading. Could any railroad in the country afford to haul freight on such a basis as this?

Take an instance related to the writer not long ago by a friend. This man lives in a small town in Central New York. Coal prices for domestic consumption are always quoted "plus cartage," because it is a sprawled out community and delivery problems vary. Six years ago, my friend paid a cartage charge of $1.50 per ton on coal delivered to his home. In 1920, the coal dealer having replaced his horses by motor trucks, found that he was able to reduce this charge to $1.25. Last fall, my friend was pleased to note that his coal bill carried a cartage charge of only an even dollar per ton.

More Business and Less Cost

Being curious to know why, with no decrease in labor or fuel costs, the dealer yet was able to make this further reduction, he was informed that increased business had demanded larger trucking capacity; that the dealer had purchased trailers, rather than additional trucks, and that the saving in idle time of his trucks during loading and unloading had enabled the dealer to cut his delivery costs and pass part of the saving on to his customers.

THIS is but a single instance, and it is obvious that the same principle is applicable not merely to coal yards, but to at least fifty per cent of trucking operations of all descriptions. At first thought, one would assume that the department store, with its package-by-package unloading requirements could save nothing by trailer equipment, yet a large New Jersey department store has found it highly profitable to adopt trailers. A contractor in Stockton, California, operates a regular freight service over a 42 mile route by means of 7 trucks and 9 trailers; a railway in Chicago, finding it necessary to cover a 6¼ mile route from its freight rail terminal to a down town terminal, figured it would need ten 5-ton trucks—and discovered that ten trailers with three tractors fulfill its requirements at an immense saving both in investment and in operating costs. These are but straws which show how the wind blows.

That that wind is as yet but a gentle breeze, rather than a hurricane, is due to several factors. First of all, there is inertia: the average human mind is prone to let well enough alone and to resist change. Again, the truck manufacturer has in the past hesitated to promote the trailer idea for fear it would lessen the demand for trucks. Only very recently has he come to realize that the trailer cannot supplant the truck, but that, in many cases, it can open up fields in which

EVEN SCIENCE NEEDS ITS MOUTH-PIECE

When a noted scientist predicts startling discoveries, they are reported in all publications and discussed in all scientific circles.

When Jones, the Seer, indulges in predictions only the ignorant minority pay any attention.

The scientist is an authority in his line.

The dealer is the nearest authority to the user.

Reaching the trade through the trade press is reaching the user through his authority.

the truck alone cannot compete; that, in fact, he gains, rather than loses, by the promotion of the trailer.

Matthew W. Potts, materials handling editor of **Industrial Management,** writing in that publication (March, 1924) on the subject of "Trucks, Truck Bodies and Transportation," after discussing the various types of truck bodies suited to different uses in industrial plant haulage, makes the following significant statement:

"Plant executives who study the needs of their trucking equipment, and investigate their body requirements, as others have done who are operating a number of trucks for delivery between plants or to consumers, will find that the bodies mounted on trailers instead of on the truck chassis will permit even greater savings. As previously stated, the item of time spent in loading and unloading is often excessive and costly. It is imperative that lost time be reduced to a minimum. The truck is too costly an article to be used as a loading platform, and should be kept continually under load and on the move, to be a profitable investment. This can be easily accomplished by the use of one of the many forms of trailers."

Similarly, Rollin W. Hutchinson, Jr., a qualified authority on transportation, writing as far back as the latter part of 1921, says:

"Among merchants and manufacturers alike who pride themselves on the application of scientific economies in their businesses, there are still several hundred thousand motor trucks that are being operated on the obsolete, slow and wasteful horse-vehicle standards. The owners of these trucks, compelled to adopt them during the war period when horses were unavailable, have merely employed the motor truck as a substitute for the horse, and not as the truck really is—**a modern business builder.** More than 250,000 of the million motor trucks in the United States still spend a third or a half of their working day with their wheels not turning. Obviously under such conditions the truck becomes nothing more than a warehouse on wheels, whereas the purpose for which it is built is not to be a warehouse but to move goods as rapidly as possible from one place to another."

Are You Breaking the Law That Regulates the Trade-in?

By A. M. PEARSON

HOW few realize what hidden riches our business enterprise contains? How few are drawing on the resources of the truck industry? How many are allowing profits to dribble through their fingers?

There is no rule of thumb, trial and error process in building motor trucks. Were trucks manufactured by the same uncharted methods which govern sales, the dealer would not handle, the salesman sell, nor the buyer accept them.

Every manufacturer of motor trucks knows the law of impact, "the square of the speed multiplied by the mass," which means that a truck weighing 5000 pounds traveling at a speed of 10 miles per hour will hit an imposing object with a force of 500,000 pounds. Every engineer designs around this law. If he disregarded it, his trucks would be too light to stand the jar or so heavy they would defeat their own purpose.

No truck maker questions this law of the impact. It is an established law of physics which none can dispute or ignore.

It would then seem apparent that if we are to build substantial sales we must find some law to keep us on the "trade-in" burden. No one argues that a sale can be good and bad at the same time. Every one agrees that the "trade-in" is an evil. What we need is a law that has good attributes and will properly remove the bad elements.

There is such a law. It is as old as the art of trading. The penalty we are paying for breaking it is called the "used truck problem." The law is "to trade is to exchange finished products for raw materials." This law is immutable. It was learned by long years of business experience ages before the Christian Era. It is accepted by students and taught by professors of economics. It is to business what the tables of arithmetic are to accounting.

The Principle is the Same

MODERN business is founded on this law. In ancient days as trade grew larger in volume, it became clumsy, so to speak, to take a load of wheat to the mill each time we wanted a sack of flour. So the wheat was brought in, stored in warehouses and tokens of shells or metal given to represent the wheat. Then when we wanted flour we gave up the tokens. This was the beginning of money. Later the stamping of ingots as a guarantee of quality and weight led to a standardization of coins.

When we exchange finished articles for raw materials we get an excess of raw materials. This we call profit. Profit being a return for labor and skill of production. Profit is justified service.

Now we get down to the meat of the proposition. This law applies to the sale of motor trucks in this way. A motor truck is a finished product. We exchange it for money which represents the raw material. Out of this raw material we must get more trucks to sell and have some raw material or profit left over. But suppose in getting this raw material we take over some doubtful goods such as a second-hand truck. How are we going to manufacture that into finished products?

Obviously it cannot be done. The only chance we have is to exchange this doubtful material for good material or its representation in money.

The motor truck industry is not different from other lines of business. It must follow the same fundamental principles in effect in other lines. There are five fundamentals to existence. These are food, fuel, shelter, clothing and transportation to make each of the others available to the public. Since transportation is one of the five fundamentals it must follow the same course as the other economic conditions.

When we sell a motor truck **we sell so much unused transportation.** When we "trade in" a motor truck **we buy so much unused transportation.** The question we must determine is "How much unused transportation are we buying?" If we know that we know the price at which it can be sold.

Guess Work Will Not Do

The "trade-in" problem cannot be surmounted by guess work. It can be solved scientifically. The cry is that such statements are bunk and that a good business man uses common sense. Following the law is common sense. What we generally call common sense is but another name for common ignorance. It is always interesting, sometimes pathetic, to watch men try to free themselves by devious means when a law is at hand to solve the problem.

We cannot ignore the "trade-in" because it is justly a part of the truck business. By no other means could we keep the market fresh. Old trucks must be absorbed otherwise the past will overtake the future and the market becomes stagnant. It cannot be done by substituting price for transportation, because that is wrong. That gives us too much bad raw material. The sale of transportation is much more important than moving the truck.

If we look at it rightly we can sell transportation and give away the truck. In fact that is exactly what should always be done. Freight transportation is worth so much per pound per mile, according to the classification of the goods. That is surely simple enough, and that is what we sell or buy. Any man who cannot sit down and figure the transportation cost on ten or fifteen of the principal articles of every day commerce certainly does not know much about motor transport. It is plainly evident, if we don't know what we are doing we are not going to do it very well.

Let us not fool ourselves. Stimulation is not nourishment nor can we cure the "trade-in" evil with plans and schemes which consider the vehicle and nothing more.

An effect has a cause. If the effect is bad you must remove the bad cause. As quickly as we begin to buy unused transportation instead of a "used" truck, we will have what we call a miracle. But a miracle is nothing but a natural law working without interference.

Rebuilt Trucks Pay Big Dividends

How a Dealer Averages 400 Rebuilt Truck Sales Per Year

WHILE so many new truck dealers are finding difficulty in disposing of the vehicles they take in trade, it is interesting to find one dealer in used trucks only who is maintaining a steady and profitable turnover. The firm is the W. E. McCarron Corporation of Chicago, which has recently increased its capitalization from $10,000 to $50,000 in its eighth year of business.

This company deals only in used trucks, most of which are purchased from bankrupt or otherwise financially embarrassed truck manufacturers, dealers and fleet owners. Every truck so acquired is thoroughly overhauled or rebuilt and sold with a ninety-day guarantee similarly to new trucks.

Averages 25 Per Month

For the past few years the sales have averaged 25 a month, although last year the total sales exceeded 400. Quite a number of these are of course subject to trade-ins, but allowances on trades are so small that this class of business is somewhat discouraged. Most of the sales too are on terms, which are usually on a basis of 25 per cent down and twelve months to pay. Mr. McCarron however does not make any hard and fast rule as to this, because he transacts all the business himself and uses his discretion as to the credit. All this payment paper is carried by the company so that they can fix terms to suit any individual case.

A feature that attracts buyers is that after purchasing any truck they think they would like another of a different make or size, they can negotiate this and receive the full value of their original purchase as allowance on the second choice.

Obsolete Models Not Handled

ON an average the retailing price of these rebuilt jobs varies from half to two-thirds the retail price of the new vehicles as listed by the manufacturers. Naturally no really old or obsolete vehicles are dealt in, so the buyer has no fear of any great falling off in value after a few months' use. Then too there is a $15,000 stock of parts always on hand, which includes spares for practically every make and model of vehicle handled.

No salesmen are employed in the disposal of these vehicles and very little advertising is indulged in. Most of the sales are transacted at the salesroom on Milwaukee Ave., and strange as it may seem an appreciable proportion of the buyers are individuals who have been recommended to McCarrons by dealers in new vehicles. Most of the business now however is directly traceable to word-of-mouth recommendation.

W. E. McCarron
Rebuilder of Used Trucks Exclusively

About a mile away from the sales premises is the rebuilding plant, where 8 to 12 trucks are constantly undergoing the rejuvenation treatment. Most of them are entirely stripped down and rebuilt and repainted, although naturally some do not need this drastic treatment. For this work a staff of eight mechanics is kept, and Bob Strumpp, the repairs manager, usually manages to arrange his work so that the men are kept evenly busy the year round and there are no lay-offs or emergency hirings.

Choice From a 100

Close to the salesroom is a warehouse in which a number of vehicles ready for sale or awaiting overhaul are stored. At the three premises therefor there is generally an aggregate of about 100 trucks for the prospective purchaser to choose from.

An interesting sidelight on these trucks as commercial propositions is given by the fact that several large truck users in Chicago have built up their fleets entirely from used vehicles supplied by the McCarron Corporation. In that is evidence of the satisfaction that W. E. McCarron, who by the way is practically sole proprietor of the business, has built into his used truck service, and accounts for its present strong financial position and expansion.

View of the Rebuilding Plant of the W. E. McCarron Corp. of Chicago. From 8 to 12 Trucks are Constantly Rejuvenated Here

Motor Trucks Replacing Horses

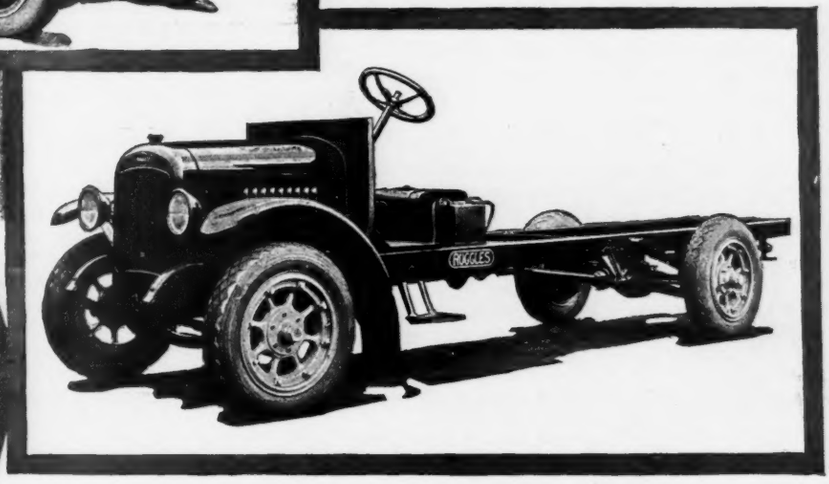
The consumption of hay in Greater New York has decreased anywhere from 25% to 35% during the past year on account of replacement of horses by motor trucks, according to a bulletin prepared by W. D. Power & Company. Reports from the principal hay producing sections of this country, also Canada, are to the effect that the farmers are holding double the amount of hay at this time that they did in former years.

RUGGLES MOTOR TRUCK CO. RUGGLES SAGINAW, MICH.

New!

—another
RUGGLES ACHIEVEMENT

Radius Rods are standard equipment on the Ruggles Model 22.



A Better 1½ Ton Truck

Here is one of the finest trucks RUGGLES ever produced and combines the best of hundreds of ideas submitted by dealers and fleet operators from coast to coast. It is a chassis built on EXPERIENCE and developed from start to finish to meet the growing demand for a better all-purpose truck—strong enough and powerful enough for semi-heavy-duty service, economical enough for light delivery and fast enough for long distance hauling.

Never was a truck more painstakingly designed. For months Ruggles engineers have subjected every working part to the most rigid of tests. Every unit has been chosen with greatest of care. Quality of materials and workmanship cannot be criticized yet the low price made possible by Ruggles volume and manufacturing facilities makes this by far the "Outstanding value in the 1½ ton field." Write for specifications and prices.

WHAT RUGGLES OFFERS DEALERS—

A complete line of trucks from light, fast delivery to big, heavy-duty models, including special models for fire trucks, police patrols, ambulances and other special equipment needs.

A complete line of deluxe motor coaches and city type buses in both "six" and "four" cylinder models covering a range of 16 to 30 passenger capacities.

The Ruggles dealer proposition will interest every automotive merchant who appreciates the unprecedented opportunity made possible by present business conditions.

RUGGLES MOTOR TRUCK COMPANY
SAGINAW, MICHIGAN, U. S. A.

RUGGLES

Lack of Equipment No Excuse for Poor Maintenance Work

Second Annual Maintenance Equipment Show Brought Forth Many Additions to Popular Lines

MOST of the exhibitors who attended last year's Automotive Maintenance Equipment Show again participated in the second annual show which was held in Detroit last month. There were also a few newcomers. The total of the exhibitors did not run quite as high as the first event, but at that the exhibitors attending registered 80 per cent of those manufacturing maintenance equipment.

There was very little shown that was radically new, but many makers produced additions to present sizes, all for the purpose of adapting their equipment to any possible requirements.

Careful inquiry at the various exhibits disclosed the fact that today shop equipment is available to meet practically any pocket book. No shop need to complain because of the high prices of shop equipment, neither has any shop reason to do hand work when machinery is now available for any kind of a job that may come into the shop.

Need Trained Mechanics

FURTHERMORE, manufacturers of maintenance equipment are doing their utmost to make their products as fool proof as possible, realizing the scarcity of really trained mechanics. This situation has become so accute that a special meeting was called to consider the problem. This meeting included the Educational Committee of the N. A. C. C., also the heads of several schools and a number of service executives. A tentative plan was presented which will be carried out by the committee with assistance from the various interests involved. The plan includes a carriculum, which will be approved by the N. A. C. C. with the manufacturer to co-operate by providing service data and the necessary equipment. The plan also suggests the idea of students working in service stations under expert guidance during the course.

H. E. Repasz, assistant service manager of the Willys Overland Company and chairman of the educational committee presented a report in which he outlined the findings, the proposed plan and recommendations as developed by the work of the past year. His report shows that about 300,000 men are engaged in service work at present, 90,000 of whom entered this field in 1924. Only about 20,000 of these had any appreciable preliminary training. Due to the increasing number of vehicles on the road each year, it is estimated that 10,000 men will be required in this field.

During the convention sessions the "personal element in relation to service" was repeatedly mentioned by the various speakers. It is not a question of machinery and tools alone but rather a case of selling the personnel and the shop to the prospective customer. In other words, the best equipped shop would be of little value if the personnel did not give the customer that courteous treatment and attention which the American public is today demanding in most every line of business.

The first convention session was opened by Harry R. Cobleigh, who acted as chairman in the absence of Howard A. Coffin, assistant to the president of the Cadillac Motor Car Co. Coffin's paper entitled "The Personal Equation in Service Profits" stressed the human relationship in business establishments which usually is given little consideration. The high points of his paper are brought out in a series of questions, which follow:

Are service salesmen given a definite written policy of service which will guide their statements and actions?

Are rewards made in the service organization as they are in the sales staff?

Are regular service conferences held?

Is a card index maintained as a guide to owners who use the service and those who do not?

Does any regular follow-up determine the customer's satisfaction after major service jobs?

Does the manager check delivery promises personally?

Are new owners introduced to the service department and acquainted with its possibilities?

Are owners accorded the full advantages of a service department in obtaining licenses and similar troublesome tasks, also by warning for cold weather operations?

Is the spirit or morale of the service organization developed?

Budget Control Insures Profit

J. E. MILLS, service manager of the Packard Detroit branch advocated the budget control in service as one of the best methods of insuring a profit in the business. By means of charts he illustrated that it is not difficult for any service manager to ascertain how many cars he ought to be servicing. By segregating these cars as to their age a fairly approximate figure can be obtained as to the amount of service that a shop ought to be doing. The data is obtained from the shops existing service records. While the budget idea is not new its application will help any repair shop owner or dealer to conduct his service department on a business basis.

Robert C. McWane, of the national Motor Regrinders & Rebuilders Association, gave a very detailed account of the methods pursued by his organization in reconditioning engines. He did not advocate any radical measures and made no objections to any particular form of reconditioning cylinders, paying tribute to all three methods. Which particular method to use depended entirely upon the condition of the cylinder block. But he did insist that thorough reconditioning meant approximating factory accuracy throughout.

Co-Ordination of All Departments

CAPTAIN E. V. RICKENBACKER, who handled the second day's convention session, emphasized the importance of co-operation among the factory, service engineers, production and sales departments, and between the retail sales and service departments. He particularly deprecated the tendency of service managers telling their troubles to the sales department. Frequently this situation results in a great deal of lost confidence on the part of the sales fraternity and many times is responsible for the undermining of a dealer's business.

Mr. Hastings of Williams & Hastings gave some interesting figures on the cost of operating a big city service station. His analysis of income and expense during the year 1924 follows:

Outside labor sales		$52,000
House labor sales billed at retail prices		35,000
Miscellaneous income and profit on outside work, salvage and on oil and grease		8,000
		$95,000
Cost of labor		36,000
Expenses—		
Salaries	$23,000	
Heat, light and power	600	
Maintenance of tools and equipment	2,000	
Idle time	1,000	
Depreciation	3,800	
Supplies	6,400	
Insurance	200	
	$37,000	$37,000
Total cost and expense		$73,000
Gross profit		22,000
General overhead		15,000
Net profit		$7,000

The shop is operated on a flat rate basis while the mechanics are paid on a piece work basis. Greater shop output is secured by dividing the men into teams with two team captains. The two mechanics with the highest earnings during a two-week period become captains and they chose their teams from the shop personnel, the higher man getting first choice. The team receiving the highest

(*Continued on page 53*)

Selling a Delivery Service, Not Just a Truck

Electric Truck Manufacturers Are Advertising and Selling Their Product on a Delivery Service Basis

By RAYMOND ZINDLE
Of the Staff of the Society for Electrical Development

"WE have transportation for sale." That was the opening sentence of a letter to prospective users recently sent out by a manufacturer of electric trucks. That statement appropriately epitomizes the attitude of the electric truck industry in merchandising its commodity—to sell electric trucks only where they are applicable, where a transportation analysis will show that they are best suited, where they will save users money. The electric truck serves a definite transportation need.

The electric truck is not competitive with the gasoline truck, provided each is applied in its proper field. The Autocar Company, of Ardmore, Pa., manufacturers of both gas and electric trucks, makes the following statement:

"The field for each the gas and the electric truck is determined by the length of the haul; which, in turn, is determined by the frequency of stopping and starting, a condition which depends upon two factors—congestion of traffic and multiplicity of deliveries.

"On long hauls with few deliveries and little traffic, the gasoline truck is more economical. And, at the other extreme, short hauls with many stops, the electric truck has proved itself to be more economical.

"The field of the electric truck is practically the same field in which the horse was formerly dominant; but compared with horses the electric truck has established an indisputable record of cutting hauling costs by a large percentage. The electric truck has from three to four times the speed of a horse, and more than twice the cruising radius of a horse in both good and bad weather. It can be counted upon to do from one and one-half to two times the work of a team of horses at practically the same operating cost per day, even taking into account the much greater initial investment required."

Charles A. Ward, President of the Ward Motor Vehicle Company, who has done much to build the electric truck industry, has summarized the position the electric truck industry recently found itself in, as follows:

"For twenty years the electric industry, after an auspicious beginning, practically stood still. Many believed it practically dead. But recently there have been developments which indicate that within a very short time there will be an increase in number of manufacturers, an awakening among dealers and a great growth in the use of electric vehicles with a resultant decline in the number of horses on our streets. Modern business demands it.

"The electric truck got off to an all-right start compared with the gas truck twenty years ago, but unfortunately in those days the electric truck was considered a competitor of the gas truck and was frequently misapplied. Electric trucks were sold to cover routes that were wrong for them. Besides this mistake the electric trucks of those days were almost as far from perfect as the gas trucks of those days, although it is a fact there are a number of electrics that are twenty years old and still running around the streets of our largest cities.

"Besides applying them to longer routes than they could cover with the capacities of the batteries that existed in those days, there was another mistake of omission made that persisted until a few years ago, namely, very little effort was made to educate business men on the subject of electric trucks and transportation. In the gas truck field the passenger car did the educational work for the truck and it was an easy step into the use of gas trucks for the business man who was driving a passenger car. But that same business man knew little or nothing about electricity and he never stopped to think that it was just about as simple to charge an electric truck as it is to plug in and operate an electric fan, lamp or toaster.

"Furthermore, business men knew little or nothing about the economies and efficiencies of electric trucks, and, again, the industry did very little educational work to overcome this ignorance.

"On top of it all the business man was, and a number of them still are, ignorant of their delivery problem. They couldn't tell you the cost of delivery in relation to gross sales. They could guess at it, but they often guessed two or three times as much mileage per route as is actually the case. They knew little or nothing about the speed they could obtain under city traffic conditions and the industry did little or nothing to enlighten them."

Perhaps that is getting away a bit from the subject—selling a delivery service not just a truck—but it is because the electric truck industry has taken stock of itself in this regard that the industry has crystallized its thinking, has made material changes in its selling plans and is now devoting a very considerable part of its advertising and sales efforts to a discussion of the delivery problem as such. In fact the preparation of all advertising copy by the manufacturers of electric trucks, batteries and accessories is laid out with this as a foundation.

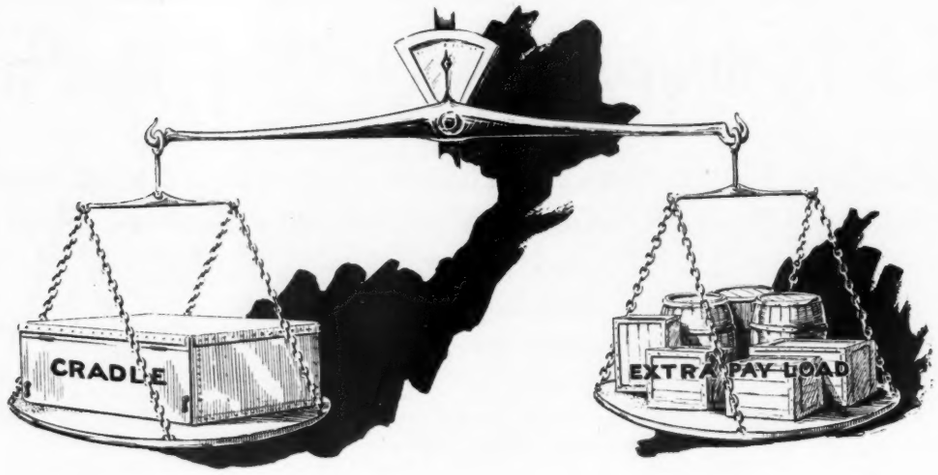
Similarly, in its efforts to line up additional dealers "You are in the business of selling transportation or should be" is made the keynote. Dealers selling both gas and electric trucks—and the number of these is steadily increasing—are urged to sell a prospect a delivery service, the best unit for a specific application. Dealers selling only electric trucks are instructed to sell them only where they are applicable. This, without doubt, is the reason why 60 per cent of all electric trucks sold during 1924 were repeat orders. It has been said that "Every electric truck user is an electric truck booster" and by and large this is true.

Urging business men to face the facts of delivery costs and to use the equipment which will minimize those costs is the underlying trend of practically all electric truck promotional matter. In consequence business men who in the past provided for their delivery problems merely as a matter of course, is a matter of business necessity, are now beginning to figure costs—not just to buy on the basis of first cost but on the basis of cost

(*Continued on page 53*)

A Familiar Sight on the Streets of Memphis, Tenn.

Although no longer new this interesting hauling equipment still excites attention. The incongruity of a Lilliputian power-unit and a mammoth load compels attention. The O. K. Transfer Co., of this city, is capitalizing on the natural curiosity of the average human and is making its haulage equipment perform two roles—a vehicle of burden and a striking advertisement. The trailer used is made by the Fruehauf Trailer Company.



How much does a Cradle weigh?

The weight of a cradle to hold the battery on a one-ton electric truck is about 400 pounds.

And it is as much as 1200 pounds on the largest trucks.

This cradle costs money in material and it costs money in labor.

But the big cost is the unnecessary weight carried when in place of the cradle the truck could carry from 400 to 1200 pounds more load.

Why that much time and money should be spent building a cradle and why that much weight should be carried around, when the chassis is already there to carry the battery, is hard to say.

But anyway Ward has broken away.

Ward mounts the battery on the chassis where it belongs and saves that 400 to 1200 pounds weight.

And that's net gain. No load space is lost by mounting the battery on the chassis. Note that—*no load space is lost.*

That's because *weight* is the measure of a truck's load and not *space.*

The truck body can be built to meet space requirements. But there is no such elasticity in the matter of weight. In weight there is a rated maximum limit to a truck's load.

The bodies for Ward Electric trucks are built to meet the requirements in space that are dictated by the rated load, which is a gain in rated load of 400 pounds on a one-ton truck and 1200 pounds on a big truck, because the cradle has been done away with.

It's a poor argument for anybody to say that the battery takes up loading space when an underslung cradle actually curtails the trucks' loads by 400 to 1200 pounds.

Send for our new booklet "Another Golden Opportunity."

WARD ELECTRICS

WARD MOTOR VEHICLE COMPANY, MT. VERNON, N. Y.

EDITORIALS

Don't Keep Them Out

ONE of the things which was stressed repeatedly at the recent Service Convention was the fact that the personnel and establishment of the dealer or repair shop must be sold to the customer. One of the most efficient methods of selling the owner on your place is to show him what is inside of it. Not every owner cares to see how his truck is being overhauled, but the wise superintendent will not hesitate to show his customers especially where an overhaul job is being done, just how much care and accuracy is exerted in doing the work. The shop that encourages visitors is usually the kind of shop that can be depended upon to turn out high-class work. Such a shop will be kept clean and presentable at all times, which in itself is an incentive to careful workmanship.

Not Interested

IT seems rather unusual for a motor truck manufacturer to refuse to adopt a new principle of design, knowing that the benefits derived therefrom would produce a great saving in the cost of operating his truck. However, such a case was recently brought to our attention where the device was given a thorough try-out by the truck manufacturer's engineering staff and was okeyed as doing everything the inventor and designer claimed for it. In fact the entire engineering staff, with the exception of the chief engineer, approved the device and was in favor of adopting it. Although the chief engineer gave some theoretical reasons for not being sold on it, even these were proved incorrect by the designer of the system.

We do not question the ability of the engineer, nor do we expect the motor truck manufacturer to adopt all kinds of apparatus that may be brought to his attention, but when a piece of apparatus is offered that fufills all the claims made for it and the manufacturer does not see fit to adopt it, especially when the apparatus will lower operating costs, it does seem as if the manufacturer doesn't care so much about the ultimate results his product will produce in the hands of the owner, as he does for the immediate profit he derives from the sale of his vehicle. Any device which will cut down motor truck operating costs certainly deserves the most ardent attention of truck manufacturers.

The Cost of Selling

FEW dealers can definitely answer the question "What does it cost to sell a truck?" Perhaps there's a reason. One month a dealer may sell 20 trucks, and he may not sell another for one month. During the middle of what should be his busy season he may be unable to get delivery of the model in greatest demand, or some defect may develop in a new model and kill the sales for the rest of the year.

These are but a few things the truck dealer has to contend with, but they serve to show why it is unwise to adopt hurried conclusions as to the amount of business he may expect in any one year. Truck merchandising business, as far as the individual dealer is concerned, fluctuates within wide limits. Therefore the unit cost of selling a truck also varies, and upon this fact turns the whole question of profit and loss to the dealer.

With a less number of vehicles sold, the cost of selling each truck is increased, and the profit is therefore less. It is therefore humanely impossible for any dealer to say how much profit he has made on any one deal until the financial year is ended and an analysis made. That being so it is obviously absurd for that dealer to say that he can afford to give away so much of the estimated profit in the form of a discount or trade-in allowance. First of all, he must know what his profit is. So much would appear to be obvious, yet every day one hears of examples of dealers deciding that their 15 or 20 per cent is more than sufficient for their requirements, and handing some of it back to the customer in one way or another. This procedure undoubtedly gets them some business and they go merrily on their way until some unforeseen circumstances arise, and they find they can not cut their overheads to meet their reduced income. Next we see them insolvent, explaining to their creditors why the circumstances they had not foreseen or made allowances for had knocked the bottom out of their business.

The moral of all this is, "Don't give your profit away until you are sure you have made one to give away." And then keep it.

News of the Trade

Louisiana Makes Governor Use Compulsory

According to a new State law which goes into effect July 1st in Louisiana all trucks of more than 1-ton capacity must be equipped with governors. The speed of one-ton trucks must be regulated to a maximum of not more than 15 m. p. h.; for more than 2-ton trucks not more than 12 m. p. h. Motor buses are not included under this governor ruling.

McCord Radiator Again Expands

The McCord Radiator & Mfg. Co., Detroit, has acquired the business of National Radiator & Manufacturing Corp., also of this city, taking effect as of June 1, 1925, it was announced today by Mr. A. C. McCord, president of the former concern. The deal was negotiated by Mr. McCord with Adrian D. Joyce, President of the Glidden Company, of Cleveland, who with his associates some years ago purchased control of the National Can Company, and subsequently sold the can business to the Continental Can Company, reincorporating the radiator business.

Bethlehem Moves Their Executive Offices to Newark

Pending the complete consolidation of the old Bethlehem Spark Plug Company, Inc., and the Splitdorf Electrical Company, the executive offices of the Bethlehem Spark Plug Company and the Splitdorf-Bethlehem Electrical Company will be moved to Newark, N. J., and operate from the offices of the Splitdorf Electrical Company. When the final legal and technical terms of the merger are completed, the affiliated companies will operate under the name of the Splitdorf-Bethlehem Electrical Company. Mr. William N. Davidson, with the executive department of the company, will have Newark as his headquarters beginning as of June 1st.

St. Louis to Tax Heavy Capacities

The Director of Streets of St. Louis will present the Traffic Council of this city a plan for providing increased taxation on motor buses and trucks exceeding seven tons in capacity.

It is explained that streets which were laid 15 years ago were not designed for heavy duty service and a bill limiting trucks to five tons maximum capacity is designed to reduce this expensive destruction.

Graham Brothers Reduces Prices

The one-ton Graham Brothers chassis, which formerly sold at $1175 f.o.b. Detroit, has been reduced to $1095 and the one and one-half ton chassis, which was sold at $1375, has been cut to $1280. Other chassis prices have been reduced proportionately.

Coming Events

CONVENTIONS

American Bottlers of Carbonated Beverages—Annual convention and exhibit will be held in the American Royal Bldg., Kansas City, Mo., October 19 to 23. Show headquarters, 231-237 Woodward Ave., Detroit, Mich. Secretary's office, 726-729 Bond Bldg., Washington, D. C. Joseph R. Flynn.

Alabama Automotive Trades Association—Midsummer meeting will be held July 20-21, 1925, at Tuscaloosa, Alabama.

American Society for Steel Treating—Annual convention will be held September 14 to 19, 1925, at Cleveland, Ohio.

American Electric Railway Association—44th annual convention will be held October 5 to 9, 1925, on Young's Million Dollar Pier, Atlantic City, N. J.

Automotive Equipment Association—Summer convention to be held June 22-27, 1925, at the Broadmoor Hotel, Colorado Springs, Colo.

Iowa Automotive Merchants Association, Inc.—7th annual convention will be held November 12 and 13, 1925, in the Fort Des Moines Hotel, Des Moines, Iowa. A. J. Knapp, secretary-manager, 514 Old Colony Bldg.

Iron and Steel Electrical Engineers—Annual convention and exposition will be held September 14 to 19, 1925, in Philadelphia, Pa.

Motor and Accessory Manufacturers Association—Fall convention, October 7 to 10, 1925, Montreal, Canada.

National Safety Council and Exhibit—14th annual congress will be held September 28 to October 3, 1925, in the Rainbow Room, Hotel Winton, Cleveland, Ohio. A. M. Smith, business manager, 168 N. Michigan Ave., Chicago, Ill.

National Tire Dealers Association—Annual convention will be held November 17 to 19, 1925, in St. Louis, Mo. Chairman of arrangements, S. L. Chorlins, 3908 Washington Blvd., St. Louis.

Ohio State Auto Association—Annual convention, June 19 and 20, 1925, Cedar Point, Ohio.

Washington Automotive Trades Association—Annual State convention, June 29-30, Everett, Wash.

SHOWS

Atlantic City, N. J., October 5 to 9, 1925—44th annual exhibition will be held on Young's Million Dollar Pier, under the direction of the American Electric Railway Association. Railway apparatus and devices of all kinds, buses, chassis, wagons and snow plow. Fred C. J. Dell, director of exhibits, 292 Madison Ave., New York City, N. Y.

Boston, Mass., October 10 to 17, 1925—World's Rubber and Tropical Exposition will be held at Mechanics Hall, Chester I. Campbell, manager.

Chicago, Ill., September 28 to October 3, 1925—14th annual exhibit will be held in the Rainbow Room, Hotel Winton, under the direction of the National Safety Council. Safety devices and traffic signals. A. M. Smith, business manager, 168 N. Michigan Ave.

Dallas, Texas, October 10 to 25, 1925—Annual show to be held in the State Fair Automobile Bldg., under direction of Dallas Automotive Trade Ass'n. J. H. Connell, Mgr.

Danbury, Conn., October 5 to 10, 1925—8th annual Fair will be held in the Danbury Fair Auto Bldg. (20,000 sq. ft.), under direction of the Danbury Agricultural Society. Passenger cars, trucks, tractors, accessories, etc. H. Lake, manager, West St.

Fresno, Cal., September 28 to October 3, 1925—15th annual show in connection with the Fresno District Fair, under the direction of the Fresno Motor Car Dealers Association. Passenger cars, trucks and accessories. Ray C. Wakefield, manager, 311 Powell Bldg.

Grand Rapids, Mich., September 7 to 12, 1925—7th annual show in connection with the West Michigan Fair, under the direction of the Grand Rapids Auto Dealers Association. Passenger cars, trucks, tractors and accessories. Wm. T. Morrissey, manager, 220 Ashton Bldg.

Green Bay, Wis., August 31 to September 4, 1925—6th annual show, under the direction of the Automotive Division of the Green Bay Association of Commerce. Passenger cars, trucks and accessories. W. F. Kerwin, manager.

Indianapolis, Ind., February 15 to 20, 1926—15th annual show, Auto Show Bldg. (70,000 sq. ft.), under direction of Indianapolis Auto Trade Ass'n. Passenger cars, trucks and accessories. John Orman, Mgr., 328 N. Delaware St.

Kansas City, Mo., Oct. 19-23, 1925—Annual A. B. C. B. Beverage Exposition, under the auspices of the American Bottlers of Carbonated Beverages. Show manager, James Vernor, Jr., Chairman A. B. C. B. convention and exposition department with headquarters, 231-237 Woodward Ave., Detroit, Mich.

Kansas City, Mo., February 12 to 19, 1926—20th annual show, American Royal Bldg., (250,000 sq. ft.), under direction of Kansas City Motor Car Dealers Ass'n. Passenger cars, trucks, tractors, accessories, aeroplanes and radio. Geo. A. Bond, Mgr., Firestone Bldg.

Milwaukee, Wis., January 9 to 17, 1926—18th annual show will be held in the auditorium, under the direction of the Milwaukee Automotive Dealers Association. Bart J. Ruddle, manager, Room 319, 105 Wells St.

Sacramento, Cal., September 5 to 13, 1925—71st annual State Fair. Passenger cars, trucks, tractors and accessories. C. W. Paine, manager. P. O. Box 592.

Salt Lake City, Utah, October 1 to 7, 1925—3rd annual automobile show and 47th annual State Fair will be held in Coliseum Bldg. Passenger cars, trucks, tractors and accessories. Wm. D. Sutton, Supervisor of automobile show, 116 State Capitol.

Shreveport, La., October 24 to November 8, 1925—20th annual State Fair. Passenger cars, trucks and tractors. Geo. T. Bishop, manager, c/o Bishop Auto Co.

Wheeling, W. Va., September 7 to 12, 1925—11th annual State Fair will be held in the Exposition Bldg. (25,200 sq. ft.), in co-operation with the Wheeling Auto Dealers Association. Passenger cars, trucks, tractors, accessories, oils, etc. Bert H. Swartz, secretary the W. Virginia State Fair, P. O. Box 116.

White River Junction, Vt., September 15 to 18, 1925—19th annual Twin State Fair will be held in the Auto Bldg. (13,600 sq. ft.), Passenger cars, trucks and accessories. F. L. Davis, manager.

S. A. E. MEETING

Cleveland, Ohio, September 15 and 16—Production meeting and exhibition.

Philadelphia, Pa., September, 1925—Automotive Transportation meeting.

White Sulphur Springs, June 16-19, 1925—Summer Meeting, Greenbrier Hotel.

CONVENTIONS

Automotive Equipment Association—Convention and show, November 9 to 14, 1925, Coliseum, Chicago, Ill. Wm. M. Webster, Commissioner.

Associated Advertising Clubs of the World—Convention, June 20 to 25, 1926, Philadelphia, Pa. Carl Hunt, Mgr.

National Association of Automobile Show and Association Managers—Annual meeting, August 11 and 12, Ambassador Hotel, Atlantic City, N. J. A. V. Comings, Sec.-Treas.

National Battery Manufacturers Association—Convention, September, 1925, New York City.

Interstate Commerce Commission Shall be Vested With Power

Resolution on Regulations Adopted for Presentation to Congress

Decision to draft a bill for presentation to Congress vesting the Interstate Commerce Commission with power to grant or refuse certificates of public convenience and necessity for motor bus companies engaged in interstate operation was reached at a meeting of the Organization Committee of the National Conference of Motor Bus Operators.

The opinions of the body on the regulation of motor buses engaged in interstate operation are embodied in the following resolution which was adopted at the meeting:

Resolved that the policy of the Organization Committee of the National Conference of Motor Bus Operators with reference to the regulation of motor buses engaged in interstate operation be as follows:

That Congress be requested to enact legislation giving the Interstate Commerce Commission the power to grant or refuse Certificates of Public Convenience and Necessity for motor bus companies engaged in interstate operation;

That in view of the fact that the Interstate Commerce Commission is already heavily burdened with work, and because of the fact that states through which such interstate operators operate are primarily interested in such operations, the authority of the Interstate Commerce Commission should be limited to the granting or refusal of such Certificates. That Certificates shall be granted as a matter of form in all cases in which the application for a Certificate is accompanied by Certificates from the State Public Utilities Commissions of the various states through which the line is to operate, certifying that such lines will serve the public convenience and necessity. The term "Public Utilities Commission" comprehends state commissions or authorities regulating motor bus transportation companies, regardless of by which name called in states; where there is no public utility regulation of motor bus common carriers the State Highway Commission may issue such certificate.)

That in other cases where such certificates from State Public Utility Commissions cannot be obtained by the applicant, the Interstate Commerce Commission shall grant a hearing on the application for a Certificate in order to determine whether or not such operation is a matter of public convenience and necessity. In determining that fact the commission shall take into consideration existing motor transportation facilities. In all other questions involving Certificates the Interstate Commerce Commission shall act as an arbiter in determining differences of opinion between the Public Utilities Commissions of the states through which such lines operate.

That all the regulations of operation of interstate motor common carriers shall be exercised by the respective states in which the operation is carried on.

That the above embodies the fundamental principles of such proposed legislation and that a bill be drafted embodying such principles and such details as will be reasonable and just having due regard to the convenience and safety of the public, and the proper protection of motor bus operators.

Members of the Organization Committee who were present at the meeting were: George P. McCallum, president, the Michigan Highway Transportation Association; Ralph W. Sanborn, president, the Ohio Motor Bus Owners' Association; R. L. May, vice-president, Motor Bus Association of Virginia, and S. A. Markell, chairman, Legislative Committee of North Carolina Bus Owners' Association and Motor Bus Association of South Carolina.

Victor Motors Purchase More Property and Equipment

Victor Motors, Inc., manufacturers of motor trucks and buses, has just completed negotiations for the properties of the East St. Louis Cotton-Seed Oil Company plant located in East St. Louis.

The amount involved in the purchase of the property and equipment acquired, together with improvements to be installed at once by the Victor Company, will represent an investment of approximately $500,000.00. The building is a one-story structure, thoroughly modern in construction, with saw-tooth roof, and is 567 by 105 feet in size, and the property on which it stands, and which was included in the purchase, has an area of approximately ten acres.

Guy Wilson, president of the Victor Company, states that the work of installation will start at once. The building is particularly adapted to the manufacture of trucks and buses. In addition to their present line additional facilities will enable the manufacture of buses.

Record Production of Previous Months Presage Continuity

June Outlook for Parts and Accessory Business Excellent

THE automotive parts and accessory business made a gain in April over March of more than 25% and has excellent prospects for the remainder of the first half of the year, according to the Motor and Accessory Manufacturers Association. The Association reports index figures of sales since the first of the year as follows: January, 100; February, 100.7; March, 132; April 168.

Keeping step with the record car and truck production in April and anticipating still another record in May, sales of units and parts to manufacturers by M. & A. M. A. members in April were 83% over January as compared with 38% in March and 1% in February.

In sales to the trade a representative group of replacement parts manufacturers reported April business 7% over January as compared with March business 5% below January and April business 14% under January. Sales and accessories in April were 93% over January as compared with 59% in March and 21% in February. In the maintenance equipment division of the industry, where purchases usually run heaviest just ahead of the spring repair season, April sales were 49% over January, a decline from the March record of 62% over January, while February business was 22% over January.

The People's Motorbus Company, of St. Louis, recently celebrated its second anniversary by carrying approximately 90,000 passengers over its 18 routes in 173 buses. In accomplishing this the buses traveled a total of 24,000 miles. On the first day of the company's opening in 1923 its 15 buses operated on a single route traveled 2455 miles and carried 10,557 passengers.

Philadelphia is Being Motorized With a Vengeance. When the Rapid Transit Company's Transportation Program is Completed, All Rail and Bus Units Will Complement Themselves Into a Fine Network of Routes That Will Render Maximum Service to Patrons With Minimum Traffic Congestion

Two hundred mammoth buses of the gas-electric type as shown above, will eventually negotiate Philadelphia's boulevards. The buses, which are of the double deck type, large and commodious, were designed especially for the Philadelphia Rapid Transit Company. They are the result of the collaborated effort of the Philadelphia Rapid Transit Co., the Yellow Coach Company and the General Electric Company. This bus was desecribed in detail in the January issue, page 25, of the Commercial Car Journal.

Trade Associations Are Not Unlawful

They Do Not Violate Anti-Trust Laws. Important Test Decision

IN two decisions of far reaching importance to American business, the United States Supreme Court held that trade associations do not violate the anti-trust laws in gathering and disseminating among their members information as to costs and quantity of production, stock conditions and sales prices, and cannot be prosecuted for so doing.

The majority decisions written by Justice Stone were given in the cases of the Maple Floor Manufacturers' Association and the Cement Manufacturers' Association, both of which had been found guilty by the lower courts for violating the anti-trust laws. The Government contended that under the guise of exchanging trade information these associations had virtually formed and were operating a commercial pool in defiance of the Sherman anti-trust act.

In his decisions, Justice Stone argued that a combination in these two trades might have come about through the methods complained of, there was nothing to show that such was the intent, and that on the other hand, especially in the case of the maple flooring manufacturers, diligent effort was made to keep within the anti-trust laws.

The court was not unanimous in the opinion. Chief Justice Taft, Associate Justices McReynolds and Sanford, submitted dissenting opinions. Justice McReynolds held that the activities of two organizations have been held unlawful under decisions already laid down by the court in the hardwood lumber and linseed oil cases.

Industrialists throughout the country consider the two actions as test cases, in which the final decision would govern to a large extent the future business methods, manufacturing and selling costs of some of the greatest corporations.

Commenting on the Supreme Court decisions affecting trade associations, Alfred N. Reeves, general manager of the National Automobile Chamber of Commerce, said:

"The decisions are very important as affecting business and trade associations generally. The legitimate work of associations should be greatly benefited. The automobile industry is not immediately concerned, however, since all our information is made available to the public, and since our prices are widely advertised."

Continental Shows Increase for First Six Months

With figures showing that the dividend requirements for the entire year were earned during the first six months, Continental Motor Corporation has issued its semi-annual statement for the period ending April 30, 1925.

Earnings before Federal taxes for the six months were $1,603,273.44, which is an increase of $259,525.39 over the same period of 1924 and nearly double that of the first six months of 1923.

Cash on hand and in bank amounted to $5,445,125.40 and the ratio of current assets to current liabilities is 6½ to 1.

The surplus is shown at $9,644,374.87. An increase of $2,027,127.07 over that at April 30th last year, and the inventory figures are given at $5,347,957.87.

The accounts receivable after allowing for bad and doubtful balances amounted to $2,567,172.22, an increase in six months of $976,563.58.

Mason Now Under Direct Flint Supervision

C. F. Daly, vice-president of Durant Motors, Inc., announces that the Mason motor truck and bus operation which has heretofore been conducted as a separate unit at Flint, Michigan, has been taken over by the Flint Motor Company and will hereafter be located in the new Flint plant as a truck division, the product of which will be greatly improved and will consist of a line of standard truck and bus models and a popular priced three-quarter ton job. The product of the truck division will be known as the Flint Road King.

This change is in line with the policy which has been adopted by the Durant people to concentrate their activities wherever possible in the interest of economy.

U. S. Department of Commerce Production Figures

(Number of Machines)

	Passenger Cars			Trucks		
	1923	1924	1925	1923	1924	1925
January	228,864	293,823	212,909	20,559	30,723	28,900
February	260,328	343,445	252,785	23,329	32,881	34,334
March	327,047	357,006	332,108	36,712	36,417	45,012
April	351,631	346,356	*391,301	39,744	37,911	*47,664
May	358,660	286,273	.....	45,790	35,281	.....
June	344,003	225,034	.....	42,536	29,041	.....
July	303,521	244,504	.....	31,788	26,368	.....
August	318,865	255,194	.....	32,264	28,614	.....
September	302,350	263,468	.....	29,690	31,942	.....
October	338,483	260,845	.....	31,578	32,447	.....
November	288,812	204,316	.....	29,238	27,893	.....
December	279,864	182,055	.....	28,945	27,509	.....
Total	3,702,428	3,262,319	.....	392,173	377,027	.....

* Estimated

Spicer Host to Motor Truck Industries

71 Members Present. Trip Through Spicer Plant Educational

THE monthly meeting of the Motor Truck Industries, Inc., held on June 4th, at the plant of the Spicer Mfg. Co., South Plainfield, N. J., indicated that the members are fully cognizant of the value of these meetings. Despite the extreme heat 71 members and guests answered the roll call. Following a trip through the Spicer plant, the assemblage motored to the Plainfield Country Club, where an excellent luncheon was served.

A vote of thanks was rendered to the Spicer Company for the excellent hospitality extended and the meeting was formally opened by President J. W. Stephenson. Two new committees were appointed, known as the Model and Sizes Committee, and the Rating Committee. Both committees have been deputized to work out a definite program of recommendations which will be presented at the meeting to be held in the fall. The fall meeting will be held on September 16th at the plant of the Clark Equipment Co., Buchanan, Michigan.

R. M. Hudson, who represented the United States Department of Commerce, gave a very interesting talk on Standardization and Simplified Practice, and the work done by the department in helping various industries to eliminate unnecessary duplication styles and sizes of various commodities. His address was illustrated with lantern slides. His address was very timely as it indicated to the members what relative accomplishments could be made in connection with the motor truck industry by eliminating models and sizes which greatly increase production and make it impossible for the manufacturers to reduce prices. Other short addresses made by members indicated that both the truck and parts manufacturers were fully aware of the great saving that could be realized if many of the unnecessary special sizes and duplication of parts could be avoided.

It is gratifying to note that the attendance at these meetings is increasing each month. Dues have been lowered, as it is not the purpose of the organization to be run for any financial benefit, but simply to provide a means of co-ordination of interests involved.

Schacht to Produce in the East

G. A. Schacht Motor Truck Co. has announced its intention to begin construction of a new plant on Long Island, New York. It will be devoted to sales and service and eventually will become an assembly plant for eastern territory. The plant, which will cost $500,000, will be 180 feet long by 150 feet wide and will be built on the Saw Tooth Construction type. The eastern trade of the Schacht Company has doubled in the past three years.

Equipment Mart to Open on June 19

Held Under the Auspices of A. M. A.—Constant Sales Representation

THE Automotive Equipment Mart, under the auspices of the Automotive Manufacturers' Association at 1315 South Michigan Avenue, Chicago, will be opened on June 19.

Improving selling contacts for exhibiting members is the purpose of mart. Its plan includes a centrally located sample room where the buyer can go over a large variety of automotive products under a single roof and eliminate the expense and lost time entailed by traveling from city to city. Under the plan adopted by the association provision will be made for constant sales representation at the mart for all exhibitors who desire this service.

The mart will start off with between 40 and 50 exhibitors. At the present time 40 space contracts have been signed, with others pending. Following are the exhibitors:

C. A. Shaler Co., Waupun, Wis.
The Stone Mfg. Co., Chicago.
The Storm Mfg. Co., Minneapolis, Minn.
Thompson Neaylon Mfg. Co., Chicago.
Thorn Machine Corp., Syracuse, N. Y.
Triple-A Specialty Co., Chicago.
Van Cleef Bros., Chicago.
Vesta Battery Corp., Chicago.
Warner-Patterson Co., Chicago.
Joseph Weidenhoff, Chicago.
Whitaker Battery Supply Co., Kansas City, Mo.
Scranton Glass Instrument Co., Scranton, Pa.
The Niehoff Corp., Chicago.
The Hinson Co., Waterloo, Iowa.
American Automatic Devices Co., Chicago.
American Grinder Mfg. Co., Milwaukee, Wis.
The Anderson Co., Gary, Ind.
The Apco Mfg. Co., Providence, R. I.
Apex Electric Mfg. Co., Chicago.
Atlas Specialty Mfg. Co., Chicago.
Brown & Caine, Inc., Chicago.
Chicago Solder Co., Chicago.
Continental Sales Corp., Columbus, Ind.
Dole Valve Co., Chicago.
Eclipse Timer Mfg. Co., Milwaukee, Wis.
E. Edelmann & Co., Chicago.
The Folberth Auto Specialty Co., Cleveland, Ohio.
The Fulton Co., Milwaukee, Wis.
Gemco Mfg. Co., Milwaukee, Wis.
Gill Mfg. Co., Chicago.
F. C. Hersee Co., Brighton, Mass.
Hill Pump Valve Co., Chicago.
The International Stamping Co., Chicago.
Kales Stamping Co., Detroit, Mich.
Kirk-Barber Co., Chicago.
Mann & Briggs Mfg. Co., Chicago.
Marquette Mfg. Co., St. Paul, Minn.
Milwaukee Circulating Pump & Mfg. Co., Milwaukee, Wis.
National Aluminum Co., Racine, Wis.
New Era Spring & Specialty Co., Grand Rapids, Mich.
Joseph Pollak Tool & Stamping Co., Boston, Mass.

B. & M. Definitely Announces Store Door Plan

The Boston & Maine Railroad has now definitely announced that it has gone into the trucking business through a proposed door to door delivery through the use of both the railroad and the commercial vehicle. It means a complete transportation process by calling at the door of the shipper for goods and delivering it at the door of the buyer.

For the first experiment it will confine the new plan to Boston, Lowell and Lawrence. When conditions warrant it the system will be expanded. For some time the railroad executives have had under consideration plans for this type of service and had formed the Boston & Maine Transportation Company, which gives it a right to operate through the latter company on the highways without coming under the jurisdiction of the Massachusetts Public Utilities Commission.

However, in order to eliminate competition as much as possible the railroad executives, with those of other steam and electric roads, worked this year successfully to put motor trucks under the jurisdiction of the commission, and to get through a certificate of convenience and public necessities clause.

The new experiment will go into operation in June. The railroad is considering also the use of the commercial vehicle for less than carload shipments between Boston and Lowell, Lawrence and other places in each direction. This service will include the hadling by motor truck of merchandise to and from railroad terminals and at most of the intermediate points on those lines.

These intermediate truck movements are expected to displace the present local freight trains on the Boston & Maine between the stations so served, and with improvements in service and economies of operations. The great bulk of the shipments between Boston and Lowell, Lawrence, etc., will continue to move by train, however, with the direct collection and delivery at Boston, Lowell, Lawrence, etc., expediting terminal movements. Carload shipments will continue unchanged.

It is proposed to contract with existing trucking companies for the service whereever practicable, rather than to engage in wasteful competition, and it is said that responsible truckmen already established will do most, if not all, of the motor operations involved.

Gilliam Interests Transferred to Timken

The physical assets of The Gilliam Manufacturing Company were recently offered for sale to and purchased by The Timken Roller Bearing Company.

The Timken Company considered that this co-ordination of manufacturing capacity, processes and patents would better serve its customers and itself.

The production of both Timken Bearings and Gilliam Bearings will be continued in their respective plants.

The Timken Roller Bearing Company on its own record assures its customers that this purchase was accomplished with their interests fully in mind, and in expectation that material advantages will accrue to them from it.

According to real estate men in St. Louis, realty values in the outside section of the city served by the buses have been considerably enhanced. Prior to the coming of the bus lines many districts in the outlying sections of the city were without adequate transportation.

Numerous Promotions in New Dodge Staff

Nichols and Mitchell Vice-Presidents; Sanford and Vail Advanced

FORMAL announcement has been made of a number of promotions in the executive staff of Dodge Brothers, Inc., following the reorganization incident to the purchase of the business by Dillon, Read & Co., of New York.

Frederick J. Haynes, as previously announced by the purchasers, continues as president and A. T. Waterfall as vice-president. John A. Nichols, Jr., formerly general sales manager, is advanced to vice-president in charge of sales.

A. Z. Mitchell, for many years factory manager, is now vice-president in charge of manufacturing.

H. V. Popeney, formerly secretary of Dodge Brothers, is now secretary and treasurer, and R. J. Fry, who was assistant secretary, is assistant secretary and assistant treasurer.

The executive personnel appointed by President Haynes includes the following:

Assistant to the president, J. R. Lee; director of engineering, Russell Huff; chief engineer, Clarence Carson; director of purchases, R. H. Allen, director of traffic, P. G. Findlay; factory manager, R. A. Vail; production manager, Albert A. Andrich.

General sales manager, F. L. Sanford; assistant general sales manager, F. B. Walker; director of field survey, J. H. Gordon; director of districts, F. H. Akers; director of service, Arthur E. Nafe; director of Commercial Car and Truck Division, R. C. Graham; director of Civic Relations, Howard Baker; export manager, J. J. Palmer; distribution manager, H. J. New; export counsel, E. G. Willems; used car manager, A. H. Schiappacasse.

Advertising counsel, George Harrison Phelps, Inc.; manager, advertising division, H. J. Koch.

The principal promotions in this list are those of F. L. Sanford and R. A. Vail. Mr. Sanford, newly appointed general sales manager, has served previously as assistant general sales manager and director of distribution.

Mr. Vail, the new factory manager, has been associated with Dodge Brothers many years, having distinguished himself particularly during the world war when he was in charge of Dodge Brothers Ordnance division. Since then he has acted as assistant production manager.

F. B. Walker was advanced from director of service to assistant general sales manager and Arthur E. Nafe was promoted from St. Louis district representative to director of service. H. J. New, now distribution manager, was for many years chief assistant to the director of distribution and A. H. Schiappacasse, now used car manager, was Memphis district representative.

Other executives in the above list have been serving in their respective capacities for some time.

Dodge Brothers production and sales continue to surpass all previous records in the company's history, according to Mr. Sanford.

N. S. P. A. Working on Two Reports and a Sample Catalog

Following the meeting of the merchandising committee of the National Standard Parts Association, the association will issue at once a list showing the comparative volume of sales of various items of replacement parts over the country. Two other reports by the merchandising committee will also be issued within the immediate future—one, on methods of merchandising used by parts jobbers in getting distribution; two, analysis of the parts jobbers business, enabling any company engaged in this business to check his experience with results which committee investigation shows to be possible.

The committee also authorized the issuance of a sample catalog embodying recommended standards for use by both manufacturers and jobbers. This sample catalog will be mailed within ten days. The recently prepared paper, "Standard Brands of Replacement Parts," will be printed in booklet form by the association for use by members in establishing the position of standard brands as against genuine parts in the present day replacement field.

The merchandising committee will meet again July seventh and eighth at Detroit headquarters. Directors of the association will meet July thirty-first.

60 Trucks a Day

The Springfield works of the International Harvester Co. is still maintaining its schedule of sixty high speed motor trucks a day besides turning out a number of motor buses.

Exports of motor trucks and buses in 1924 amounted to 27,351, 10 per cent more than the preceding year, and 2,611 per cent greater than before the war.

National Organization of Motor Carriers to be Discussed

Interstate motor carrier regulation and other pressing problems affecting motor transportation and the question of a national organization of motor carriers will be the main topics of discussion and action at a meeting of bus operators that has been called for June 17th-18th at the Hotel LaSalle, Chicago, Ill. The purpose and date of this meeting was unanimously decided at the convention of all of the automotive industries recently held in Washington under the auspices of the American Automobile Association.

Every motor bus association, and all bus and truck manufacturers are urged to be represented at this meeting. Where no associations exist, states should be represented by independent motor carriers.

Since this meeting vitally affects the interests of all those affiliated directly or indirectly with motor transport, every effort should be made for attendance.

Personals

W. R. Angell, vice-president of the Continental Motors Corp., who just returned from three month's visit to the British Isles and the Continent, sees a splendid opportunity for American unit parts sales in expansion plans of leading European car builders. His own company has opened negotiations with several makers of well known European cars.

H. J. Bosshart of the San Francisco Branch of the North East Service just returned from a special service trip through Cuba, Jamaica, Porto Rico, Venezuela, and Trinidad. Improvement of North East Service facilities constituted the purpose of his trip. He will resume his office of assistant managership at the San Francisco branch.

C. H. Briggs, until recently associated with the Garvin Machine Co., New York, has joined the sales staff of the National Automotive Tool Co., Richmond, Ind.

C. C. Bradford has returned to the automotive industry after an absence of five years, as vice president of the Eaton Axle & Spring Service Co.

H. D. Church has been added to the staff of the White Motor Company as Director of Engineering. Mr. Church was assistant chief engineer of the Chevrolet Motor Company for the past 18 months and prior to that chief engineer of the truck department of the Packard Motor Car Co.

E. J. Claire has been named advertising manager of the Hewitt Rubber Co. He was formerly with the Wire Wheel Corp. of America.

Colonel Charles Clifton was re-elected president of the National Automobile Chamber of Commerce at the members meeting in New York June 4th. This makes the 21st time that he has been chosen as leader of the automobile industry's trade association and its predecessors.

Harry L. Corbett, divisional sales manager and **J. B. Mills,** manager of the sales promotion department of the India Tire & Rubber Co., were the India representatives on the Million Dollar Rubber City train to the Shriner's Convention at Los Angeles.

Josiah Dallas Dort, pioneer automobile manufacturer and formerly president of the Dort Motor Car Co., died very suddenly May 17th. He was talking with a group of friends when he was stricken with heart trouble. He died before medical aid could be summoned. He was sixty-four years old. He has had a vigorous career starting in the industry in 1886, when he became president of the Durant-Dort Carriage Co.

A. P. Emmert has resigned as general superintendent of the Warner Gear Co., Muncie, Ind., to take charge of the axle plant of the Hudson Motor Car Co.

E. A. Ewing has been appointed sales manager of the Ochrome Valve Company.

Theodore Friedeberg, who recently purchased the Reliable Motor Truck Co. of Chicago, has been elected president and treasurer of the new concern, Reliable Trucks, Inc. **Fred Bernstein,** vice-president, **A. O. Hoyt,** secretary, and **A. L. Bernstein,** assistant secretary. A charter has been granted with a capital stock of 100,000.

L. C. Fuller, vice-president and chief engineer of Fuller & Sons Manufacturing Co., Kalamazoo, Mich., recently sailed for Great Britain. He will tour several continental countries for the purpose of studying foreign automotive practice as well as visiting customers of Fuller products.

Walter S. Gardener has been appointed western service engineer of the Lyon Metallic Manufacturing Co. with headquarters in Los Angeles.

E. W. Goodwin is now consulting body engineer of the Velie Motors Corp. Mr. Goodwin's association with body designing dates back to 1905.

M. D. (Doc) Graham has been appointed director of sales of the Mosler Metal Products Corp., New York City. Mr. Graham was formerly connected with the General Motors Corp., Briscoe Motor Co., Sparks-Withington Co. and Cummings Bros., in engineering, advertising, purchasing and production capacities. He will concentrate his intense efforts on the Mosler Spit Fire Timer. His program contemplates limiting the distribution of the timer to 100 select jobbers.

Poul Hannover, mechanical engineer from Copenhagen, Denmark, has joined the engineering staff of the Fisher Fast Freight Division of the Standard Motor Truck Co. Mr. Hannover is a graduate of the Royal Polytechnical College of Copenhagen. He was formerly affiliated with the Renault Company and the Societe des Motors Salmson, of Paris, France.

Sid G. Harris, sales engineer, is now associated with the Commercial Car Division of the B. G. Corp., 136 West 52d St., New York City, manufacturers of the B. G. self-cleaning spark plug. Mr. Harris was formerly assistant manager of the New York branch of the Metropolitan Body Company. He will cover the fleet and dealer trade in his new connection.

Mathew Herold is the new general manager of the United States Tool Co., Cranford, N. J. He was formerly connected with the Wood-Imes Manufacturing Co., Minneapolis.

H. F. Howard, formerly connected with Wire Wheel Corp. of America in charge of branch offices, has been appointed sales manager of the York Corrugating Co.

W. A. P. John has been appointed to the Detroit staff of Campbell-Ewald. Mr. John was formerly vice-president of the Dunlap-Ward Advertising Co., where he has had close contact with the automotive industry.

Clyde T. Lamb has been appointed district manager of sales of the Thompson Products, Inc., Cleveland, over the Ohio, Michigan, Kentucky, West Virginia and sections of Maryland, New York and Pennsylvania. Another appointment is that of **Paul V. Spain,** who will take charge of the western central territory.

A. M. Landaker is the new vice-president in charge of sales and advertising for the Norlipp Co., Chicago. He was formerly connected with Osten Advertising Corp.

J. T. Lansing has joined the staff of the Robert Bosch Magneto Co. as manager of the sales promotion department. He was formerly assistant sales manager of the Bijur Motor Appliance Co.

Leigh Lynch is the new vice president of Cram & Hawley, Inc. He will take charge of all operations of the company. Mr. Lynch was formerly connected with the Fisher Body Co., where he was general manager of the Pontiac division.

C. G. McDonough has been appointed sales manager of the H. C. S. Cab Manufacturing Co. He was formerly sales manager of the taxi division of the Willys-Overland Co. and brings with him a fund of taxi experience.

(Continued on page 42)

Commercial Car Specifications—Corrected Monthly

Commercial Car Specifications—Corrected Monthly

The Specifications, Chassis Prices, Etc., Are Corrected Each Month From Data Supplied Direct by the Makers. Gasoline Tractor-Trucks Will be Found at the End of Gasoline Commercial Cars

Those Chassis Which Are Sold and Recommended for Passenger Transportation Are Designated in the Following Table by Reference Sign (§) in Front of the Name

For Specially Designed Motor Bus Chassis See Pages 42 and 43 **See Table for Replacement Data. Truck Frame Dimensions Are Included in Same Table**

(Where prices are not given it is because we have been unable to get them from authoritative sources)

For full name and address of manufacturer and information regarding complete line see page 51

Trade Name and Model	General				Engine								Electrical System		Clutch		Gearset			Rear Axle			Gear Ratios		Brakes, Location	Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Rims (Make)	Chassis Weight (lbs.) (stripped)
	Chassis Price	Standard Wheelbase (inches)	Tire Size §§ Front (inches)	Tire Size §§ Rear (inches)	Make and Model	Bore and Stroke (inches)	N.A.C.C. Rated H.P.	Valve Arrangement	Oiling System	Governor (Make)	Radiator (Make)	Fuel System Carburetor (Make)	Fuel System Fuel Feed	Ignition System (Make)	Generator and Starter (Make)	Make	Type	Make and Model	Location	No. of Forward Speeds	Universals (Make)	Make and Model	Final Drive	Type	Total Reduction in High	Total Reduction in Low						
1000 Pounds																															
Chevrolet Sup.Com.Ch	425	103	30x3½*	30x3½*	Own	3 11/16x4	21.7	H	PS	Non	Har	Zen	V	Rem	Rem	Own	P	Own Sup	U	3	Own	Own Sup	S	½	3.81	12.7	A	Own Sup	S.S	Own	Hay	Jax	1500
Overland..91	395	100	30x3½*	30x3½*	Own 91	3½x4	19.6	L	PC	Non	Own	Car Til	G	A-L	A-L	B&B	P	Own 91	U	3	Own	Own 91	B	½	4.50	17.6	A	Own 91	Own	Own	Hay	Hay	1472
1500 Pounds																															
Dodge Brothers	705	116	32x4*	32x4*	Own	3 7/16x4½	24.0	L	SP	Non	McC	Ste	V	N-E	N-E	Own	D	Own	U	3	Own	Own	S	½	4 54	18.9	A	Own	Own	Own	Kel	Kel	1992
Rainier...R-31	1970	125	35x5*	35x5*	Con N	3¾x5	22.5	L	PS	Non	Har	Zen	V	Eis	Non	B-L	D	B-L 30	U	3	Har	Tim 6258	W	½	6.75	22.5	A	Tim 1250	Per	Lav	Jon	Fir	2500
White 15	2150	133½	34x5*	34x5*	Own GK	3¾x5 1/8	22.5	L	SP	Non	Own	Zen	G	....	....	Own	D	Own 15	A	4	Spi	Own 15	B	½	5.36	23.1	A	Own 15	....	Own	Hoo	Fir	3225
Yellow Cab Mod T3	1295	109	29x4½*	29x4½*	Con V-7	3¾x5	22.5	L	PS	Non	Lon	Zen	G	Bos	N-E	B-L	D	B-L 30Y	U	3	Spi	Tim 5331	B	½	4.90	16.3	B	Tim 1341 Dey	Mar	Gem	Mot	Fir	2500
1 Ton																															
Acme Flyer	....	130	30x5*	30x5*	Con S4	4¼x4½	28.9	L	FP	Non	Per	Zen	V	A-L	A-L	B-L	D	B-L31	U	3	Blo	Col 52000	S	F	5.10	24.4	A	Col 5000S	Det	Ros	Smi	Fir	3000
Autocar F	....	97	34x4‡	34x6‡	Own 2	4¾x4½	18.1	L	SP	Non	Own	Str	G	Bos	L-N †	Own	P	Own F	A	3	Spi	Own F	R	F	8 30	33.2	A	Own F	Del	Ros	Hoo	.....	3800
Autocar G	....	120	34x4‡	34x6‡	Own 2	4¾x4½	18.1	L	SP	Non	Own	Str	G	Bos	L-N †	Own	P	Own F	A	3	Spi	Own F	R	F	8.30	33.2	A	Own F	Del	Ros	Hoo	.....	3900
Available L-1	....	133	33x5*	33x5*	Her O	4 x5	25.6	L	PC	Non	Chi	Zen	G	Bos	Bos	B-L	D	B-L 30	U	3	Spi	Cla B307	B	½	5.6	23.4	A	Shu 5504	Tut	Ros	Bim	Fir	3100
Bessemer G	1550	124	35x5*	35x5*	Con N	3¾x5	19.6	L	PS	Non	Stn	Str	G	Bij	Bos	Ful	D	Ful SU–1	U	3	Blo	Tor Int	I	D	7.00	28.0	A	She 350	Per	Ros	Sch	Fir	3000
§Bethlehem KN	1595	125	33x5*	33x5*	Own KN	3½x5	19.6	L	FP	Non	Bus	Zen	V	Bos	G&D	B&B	P	Ful SU	U	3	Spi	Eat 1000	B	½	6 86	27.4	...	Eat 750	Mat	Ros	Van	Fir	2880
Betz J-3	1850	140	34x5*	34x5*	Own J-3	3¾x5 1/16	22.3	L	...	Non	Chi	Zen	G	Bos	Bos	B-L	D	B-L 30	U	3	Pet	Tim 6352	W	½	....	....	A	Tim 1250	Mar	Ros	....	Fir	3150
Biederman	....	138	34x5	34x5	Con 8R–6	3 3/8x4½	27.3	L	PC	Han	Own	Zen	G	Del	A-L	B-L	D	B-L 31	U	3	Spi	Cla	B	½	5.5	27.	A	Shu	Mat	Ros	Cla	Fir	3200
Casco A	1700	130	34x5*	34x5*	Bud WTU	3¾x5 1/8	22.5	L	PC	Non	G&O	Zen	V	Bos	Bos	Ful	D	Ful SUI	U	3	Spi	Col 52000	S	¾	5.85	23.4	A	Col 5000	Per	Woh	Arc	Fir	3200
§Chevrolet Sup	550	120	31x4	34x4½*	Own Sup	3 11/16x4	21.7	H	PS	Non	Har	Zen	V	Rem	Rem	Own	P	Own Sup	U	3	Own	Own Sup	S	½	6.33	24.1	A	Own Sup	S.S	Own	Hay	Jax	1900
Concord E	2500	135	34x5*	36x6*	Bud GBU	4x5¼	25.6	L	PC	Non	Own	Car Zen	V	Eis	Wes	B-L	D	B-L 30	U	3	Spi	Tim 6352	W	½	6.20	24.8	A	Tim 1452	....	Ros	Arc	Fir	3500
Corbitt E	....	130	34x3½‡	34x4‡	Con N	3¾x5	22.5	L	PS	Non	McC	Str	V	Eis	Bij‡	B-L	D	B-L 31	U	3	Spi	She W1501	W	½	7.80	25.9	A	She 33FA	She	Ros	Bim	.....	3730
§Diamond T75	....	130	33x5*	33x5*	Her OX	4 x5	25.6	L	PC	Non	G&O	Zen	G	Apo	A-L†	Cov	D	Cov JUC	U	3	Spi	Col 52022	B	¾	5.12	18.6	A	Col 5083	Mat	Gem	StM	Fir	2825
Dorris K-2	2490	Opt	33x5*	33x5*	Own	4 x5½	25.6	H	PS	Non	Mod	Str	V	Bos	Wes	Own	D	W-G	U	3	Spi	Tim 5512	B	½	4.23	15.6	A	Tim 1250	Row	Ros	Mun	.....	2000
Duplex G	....	132	33x5*	33x5*	Bud WTU	3¾x5 1/16	22.5	L	PC	Non	Mod	Zen	V	Wes	Wes	B-L	D	B-L	U	3	Pet	Tim	B	½	5.50	22.0	A	Tim 1250	Pen	Ros	Mot	Fir	3300
Federal Knight	1095	124	32x4½	32x4½	Kni	3½x4½	21.0	S	PC	Non	Own	Zen	G	Eis	A-L	B&B	P	Own	U	3	U-M	Tim 5310	B	½	6.11	22.3	A	Own	Mat	Gem	Mot	Fir	2400
§Ford T	365	123	30x3½*	30x5	Own T.T.	3¾x4	22.5	L	SP	Non	Own	Own	G	Own	Own	Own	D	Own TT	U	2	Own	Own TT	W	Opt	19.9	B	Own TT	Own	Own	Own	Own	1572
Fulton A	1495	130	35x5*	35x5*	Bud WTU	3¾x5 1/16	22.5	L	PC	Non	Liv	Zen	G	Sim	Dyn	Cov	D	Cov JUC	U	3	Spi	She W1002	W	½	6.10	.....	A	Col 5038	Row	Lav	Hoo	Fir	3600
§Garford 15	....	132	34x5*	34x5*	....	3 5/8x5 1/8	21.0	L	PC	Non	....	....	G	....	....	....	P	Own 15	U	3	....	....	W	½	6.50	....	A	Own 15	....	....	....	....	3500
§Gary WLD	1590	132	35x5	35x5	Bud WTU	3¾x5 1/16	22.5	L	PC	....	Chi	Str	V	Eis	Rem	Ful	D	Ful TU3¼	U	3	Blo	Tim 5511	W	½	5.50	24.7	A	Tim 1250	Det	Ros	Pru	Gdy	3200
§GMC K-17	....	136	34x5*	34x5*	Own K-17	3 15/16x6	20.3	L	FP	Own	McC	Mar	G	Eis	Rem	Own	D	Own K-17	U	3	U-M	Own K-17	B	¾	6.1	21.9	E	Own K-17	Own	Own	Kel	.....	3433
Gotfredson 20 B	....	131	33x5*	33x5*	Bud WTU	3¾x5 1/16	22.5	L	PC	Non	McC	Zen	V	Rem	Rem	B&B	P	B-L 20	U	3	Spi	Cla-B307	B	½	5.00	15.0	B	Sal 1546-E	Det	Gem	Van	Fir	3300
§Graham BB	1095	130	33x5	33x5*	Dodge	3 7/16x4½	24.0	L	PS	Non	McC	Ste	V	N-E	N-E	Dod	D	Dod	U	3	U-P	Own	S	½	5.10	21.2	A	Dod	Det	Dod	StM	Fir	2630
Gramm-Bern.10	....	129	33x5*	33x5*	Lyc CT	3¾x5	22.5	L	PC	Non	Own	Zen	G	A-L	A-L	Mun	D	Mun AS11T23N	U	3	Pic	Sal 1483	B	¾	5.85	23.4	B	Sal 1453	Per	Ros	Ind	Fir	2370
Grass Premier 40	1550	130	30x5	30x5	Lyc CT	3¾x5	22.6	L	PC	Non	Chi	Str	V	Bos	Bos	B-L	D	B-L 31	U	3	Spi	Cla B366	S	½	5.1	21.2	B	Con	Det	Ros	Van	Fir	2370
Hug TA	1400	118	34x5	36x6	Bud WTU	3¾x5 1/16	22.5	L	PC	Non	Per	Zen	V	Bos	Non	Ful	D	Ful	U	3	Blo	Cla	R	½	6.28	25.12	A	Col	Tut	Ros	Std	Fir	2640
Indiana 11	....	129°	34x5*	34x5*	Her OX	4 x5	25 5	L	PC	Non	McC	Str	G	A-L	A-L	B&B	P	B-L 31	U	3	Blo	Cla 307	S	½	5.66	22.6	A	Sal D	She	Ros	Bim	Fir	3300
Internt'l "S"	....	124	32x4½*	32x4½*	Lyc-Spec	3½x5	19.6	L	PC	Non	Lon	Ens	G	Con	A-L	Mun	D	Mun	U	3	Sne	Eat	I	D	5.38	21.5	A	Tor 75	....	CAS	Opt	....	2750
Kenworth OS	2150	131	30x5	30x5	Bud WTU	3¾x5 1/16	22.5	L	PC	Non	Own	Str	V	Rem	Rem	B-L	D	B-L 31	U	3	Spi	She W 1002	W	½	6.00	28.8	A	She 33FA500	Lab	Ros	Smi	Fir	4100
King-Zeitler	2050	134°	34x4‡	34x5‡	Con S4	4¼x4½	28.9	L	FP	Non	Chi	Str	G	Eis	Bos‡	B-L	D	B-L 31	U	3	Pic	Tim 6258	W	½	6.75	32.4	A	Tim 1460	Mar	Gem	Bim	Fir	3750
Kissel	1585	140	34x5*	34x5*	Own	3 7/16x5½	24.1	L	SP	Non	McC	Str	V	Rem	Rem	W-G	D	W-G T38L	U	3	Spi	Tim 6258	W	½	6 2	22.8	A	Tim 1452	Mat	Jac	Std	Seh	3780
Kleiber	2600	130	34x4	34x6	Con J4	3¾x5	22.5	L	FP	Non	R-T	Str	V	Bos	Non	B-L	D	B-L 35	U	4	Spi	Tim 6462	W	½	6.75	.....	A	Tim	Bet	Ros	Smi	Fir	....
LeMoon GP-1	....	151	34x5*	34x5*	Con S4	4¼x4½	28.9	L	FP	Non	Chi	Str	G	Bos	Bos	B-L	D	B-L 31	U	3	Spi	Cla B307	B	½	5.6	.....	A	Tim 1250	Tut	Ros	StM	....	2700
Luedinghaus	....	130	34x4½*	34x4½*	Wau X	3½x4½	19.6	L	PC	Non	Own	Zen	G	Spl	Dyn	B&B	P	D-G D-Y	U	3	....	Wis 800G	W	½	....	....	A	Col 5000	....	Lav	....	Fir	2850
§Menominee	....	132	35x5*	35x5*	Wis SU	4 x5	25.6	H	PC	Non	Per	Zen	G	Eis	Bos	B&B	P	Det KY400	U	3	Spi	Col	S	½	4.58	18.3	A	Col	Per	Lav	Std	Fir	2925
Moreland R-R	1875	130	34x5*	34x5*	Her OBX	4 x5	25.6	L	PC	Non	Own	Zen	G	A-L	A-L	B-L	D	B-L 31	U	3	Pet	Tim 5518	B	½	5 37	22.0	A	Tim 1250	U-S	Ros	....	Fir	3335
Moreland RC	2280	180	32x6*	32x6*	Her OBX	4 x5	25.6	L	PC	Non	Own	Zen	G	A-L	A-L	B-L	D	B-L 30	U	3	Pet	Tim 5512	B	½	5.37	22.0	A	Tim 1250	U-S	Ros	Own	Gdy	3850
§Nash 2018	1595	130	34x4‡	34x5‡	Own 4	3¾x5½	22.5	L	F	Sim	Lon	Str	G	Eis	A-L	B&B	P	D-G C	U	3	Own	Cla 1-D	I	D	6.80	21.8	D	Own 2018	Har	Lav	A-W	....	3400
Noble A-76	1875	143	34x5*	34x5*	Bud WTU	3¾x5 1/16	22.5	L	PC	Non	Chi	Zen	V	Spl	Bos	Ful	D	Ful LTU4	U	3	Blo	Cla B-360	B	½	6.28	25.1	B	She 33FA	Tut	Ros	Bim	Fir	3400
O. K. O	1575	131	33x5*	33x5*	Bud WTU	3¾x5 1/16	22.5	L	PC	Non	Own	Zen	V	Eis	Dyn	Ful	D	Ful LTU	U	3	Har	Tim 6250	W	½	6.75	.....	A	Tim 1250	Tut	Ros	Mot	Fir	3250
Ogden A2	....	125	34x5*	34x5*	Con N	3¾x5	22.5	L	PS	Non	Chi	Zen	V	Spl	Bos‡	B-L	D	B-L 30	U	3	Pic	Tim 6258	W	½	5.60	18.6	A	Tim 1250	Tut	Ros	Bim	Gdy	3100
Penn	750	122	30x3½*	32x4½*	Overland	3½x4	19.6	L	....	Non	Own	Til	G	A-L	A-L	B&B	P	Own	U	3	Own	She	W	½	5.50	20.0	A	Own	Own	Own	Seh	Fir	2175
Rainier R-29	2150	133	35x5*	35x5*	Con N	3¾x5	22.5	L	PS	Non	Har	Zen	V	Eis	Bos‡	B-L	D	B-L 30	U	3	Spi	Tim 6258	W	½	6.75	22.5	A	Tim 1250	Per	Lav	Jon	....	2700
Ruggles 16	....	122	30x5	30x5	Lyc CT	3¾x5	22.5	L	PC	Non	Per	Zen	G	Rem	Rem	B-L	D	B-L	U	3	Spi	Col 30000	B	¾	4.7	15.7	A	Col 3000	Det	Lav	Nor	Fir	2200
Sandow G	....	120	32x6	32x6	Bud WTU	3¾x5	22.5	L	PS	Non	Chi	Str	G	Eis	Non	Ful	D	Ful TU3¼	U	3	Spi	Cla	W	...	5.5	23.4	A	Shu 310	....	Ros	Opt	Fir	3000

For full name and address of manufacturer and information regarding complete line see page 51

Trade Name and Model	General: Chassis Price	Standard Wheelbase (inches)	Tire Size §§: Front (inches)	Tire Size §§: Rear (inches)	Engine: Make and Model	Engine: Bore and Stroke (inches)	Engine: N.A.C.C. Rated H.P.	Engine: Valve Arrangement	Engine: Oiling System	Engine: Governor (Make)	Engine: Radiator (Make)	Engine: Fuel System: Carburetor (Make)	Engine: Fuel System: Fuel Feed	Electrical System: Ignition System (Make)	Electrical System: Generator and Starter (Make)	Clutch: Make	Clutch: Type	Gearset: Make and Model	Gearset: Location	Gearset: No. of Forward Speeds	Universals (Make)	Rear Axle: Make and Model	Rear Axle: Final Drive	Rear Axle: Type	Gear Ratios: Total Reduction in High	Gear Ratios: Total Reduction in Low	Brakes, Location	Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Rims (Make)	Chassis Weight (lbs.) (stripped)
1 Ton—con'd																																	
Sandow GA	....	130	32x6	32x6	Her OX	4 x5	25.6	L	PC	Non	Own	Str	G	Bos	R-L	Ful	P	Ful TU¾	U	3	Spi	Cla	S	½	5.5	15.6	A	Shu 310	Mar	Lav	Dis	Fir	3000
Sanford W-612	....	151	33x5*	33x5*	Con8-R-6	3⅜x4½	27.3	L	PC	Non	R-T	Str	G	Con	Dyn	Ful	P	Ful	U	3	Spi	Sal E	B	¾	5.75	27.0	A	Sal E	She	Ros	StM	Fir	2960
Schacht	....	132	30x5*	30x5*	Wis SU	4 x5	25.6	H	PC	Non	Own	Zen	V	Bos	Non	Ful	D	Ful GU-7	U	4	Blo	Wis 60D	R	½	6.00	28.8	A	Shu 510	She	Ros	.....	.....	3755
Service 25F	....	132	30x5*	30x5*	Bud WTU	3¾x5½	22.5	L	PC	Non	Own	Zen	V	Rem	Rem	B&B	P	R-L 30	U	3	M-E	Eat 1500	B	½	5.62	23.0	A	Shu 310	She	Ros	Smi	Fir	3670
Sterling DW-8	....	142	32x6	32x6	Own V	4 x5	25.6	L	PC	.....	Own	Zen	V	Eis	.....	B-L	D	B-L 31	U	3	Spi	Tim 6258	W	½	5.8	27.8	..	Tim 1250	Mat	Ros	.....	.....	4200
Stewart 16	1195	130	34x4½*	34x4½*	Lyc CT	3¾x5	22.5	L	FP	Non	Own	Zen	G	Rem	Rem‡	Ful	D	Ful SU-1	U	3	Spi	Cla B-365	B	¾	5.10	24.0	A	Col3008	Det	Gem	Ind	Fir	2700
§Transport 15	....	128	32x4½*	32x4½*	Con N	3¾x5	22.5	L	PS	Non	Mod	Zen	V	Rem	Rem	Ful	D	Ful SU-1	U	3	Blo	Col 51000	B	¾	5.10	20.4	A	Col 5000	Det	Lav	Mot	Fir	2950
United 15	....	125	32x4½	32x4½	Own	3½x5	19.6	L	PC	Non	Per	Zen	G	A-L	A-L	B-L	D	B-L	U	3	Blo	Col 30000	....	¾	5.1	.....	A	Col 3000	Det	Lav	.....	Fir	.....
Wachusett S	2400	152	34x5	34x5	Con 8R	3⅜x4½	27.3	L	PC	Non	G&O	Zen	V	Bos	Bos	B-L	D	B-L 30	U	3	Har	Tim 5511	W	¾	5.50	22.5	..	Tim 1250	Sav	Ros	Smi	Fir	3300
Wilcox AA	1900	130	35x5‡	35x5‡	Bud WTU	3¾x5⅛	22.5	L	PC	Dup	.....	Str	V	Bos	Wes‡	B-L	D	B-L 30	U	3	Spi	Rus 3600-B	W	½	7.70	25.8	A	Shu 350	She	Gem	.....	.....	3600
Yellow Cab T1	1450	130	33x5*	33x5*	Con V4	3¾x5	22.5	L	PS	Non	Lon	Zen	V	Bos	N-E	B-L	D	B-L 35	U	4	Spi	Tim 5516	B	½	5.37	17.3	B	Tim 1341EGO	Mar	Gem	Mot	Fir	3130
Yellow Cab T-1	1550	150	33x5	33x5	Con V4	3¾x5	22.5	L	PS	Non	Lon	Zen	V	Bos	N-E	B-L	D	B-L 35	U	4	Spi	Tim 5516	B	½	5.37	17.3	B	Tim 1341EGO	Mar	Gem	Mot	Fir	3210
1¼ Ton																																	
Autocar F	....	97	34x4‡	34x6‡	Own 2	4¾x4½	18.1	L	SP	Non	Own	Str	G	Bos	L-N†	Own	P	Own F	A	3	Spi	Own F	R	F	8.30	33.2	A	Own F	Del	Ros	Hoo	.....	3800
Autocar G	....	120	34x4‡	34x6‡	Own 2	4¾x4½	18.1	L	SP	Non	Own	Str	G	Bos	L-N†	Own	P	Own F	A	3	Spi	Own F	R	F	8.30	33.2	A	Own F	Del	Ros	Hoo	.....	3900
Biederman	....	154	34x5	34x6	Con 6M–6	3⅜x4½	27.3	L	PC	Han	Own	Zen	G	Del	A-L	B-L	D	B-L 31	U	3	Spi	Tim	W	½	7.2	35.0	A	Shu	Mat	Ros	StM	Non	3600
Brockway E	....	135	33x5	33x5	Wis SU	4 x5	25.6	H	FP	Non	G&O	Zen	V	Eis	L-N	B-L	D	B-L 30	U	3	Spi	Col 52024	B	¾	5.12	.....	A	Col	She	Gem	Hoo	Fir	3125
Brockway E7	....	153	32x6	32x6	Wis 6Y	3⅜x5	27.3	H	FP	Non	G&O	Zen	V	.....	L-N	B-L	D	B-L 30	U	3	Spi	Col 53000	B	¾	5.12	.....	A	Col	She	Gem	Van	Fir	4000
Clinton 20B	1980	150	30x5	30x5	Bud WTU	3¾x5⅛	22.5	L	PC	Non	Own	Zen	V	Bos	Bos	B-L	D	B-L 30	U	3	M-E	Eat 1000	B	½	6.14	29.5	A	Shu 5405	Per	Ros	StM	Fir	3450
Clydesdale 10A	....	154	34x5*	34x5*	Con J-4	3¾x5	22.5	L	FP	Non	Own	Zen	V	Bos	Bos	B-L	D	B-L 31	U	3	Spi	Tim 6258	W	½	6.75	32.4	A	Tim 1250	Per	Ros	Smi	Fir	3250
Corbitt 25	....	140	34x5	34x5	Con S4	4¼x4½	28.9	L	FP	Non	MeC	Str	V	Bos	Bos	B-L	D	B-L 31	U	3	Spi	She W-1501	W	½	7.8	25.9	A	She EA500	She	Ros	Smi	Fir	4100
Diamond T 04	....	132	36x4	36x6	Hin HAA400	4 x5¼	25.6	L	FP	Non	G&O	Str	V	Bos	Non	Cov	D	Cov JUC	U	3	Spi	Tim 6258	W	½	6.25	22.47	A	Shu 510	Mat	Ros	StM	.....	4300
Eagle 101	1875	134	34x5*	34x5*	Bud WTU	3¾x5⅛	22 5	L	PC	Opt	Own	Zen	G	Bos	Bos‡	Cov	D	Cov C	U	3	M-E	Tor 1000	I	D	6.60	24.0	A	Col 5000	Cha	Ros	Std	Fir	3800
Federal R-3	....	132	33x5*	33x5*	Con J-4	3¾x5	22.5	L	FP	Non	Own	Zen	V	Eis	Rem	B&B	P	Det	U	3	Pet	Tim 6250	W	½	5.60	18.7	A	Tim 1250	.....	Gem	Dis	.....	2950
Gramm-Bernstein 10	....	129	33x5*	33x5*	Lyc CT	3¾x5	22.5	L	PC	Non	Own	Zen	G	A-L	A-L	Mun	D	Mun AS11T23N	U	3	Pic	Sal 1483	B	¾	5.85	23.4	B	Sal 1453	Per	Ros	Ind	Fir	2370
Guilder B	1650	132	33x5*	33x5*	Bud WTU	3¾x5⅛	22.5	L	...	.....	G&O	Zen	G	Eis	Bos	B-L	....	B-L31	...	.....	.....	Cla 366	...	...	5.5	.....	...	Shu 5405	Mer	Ros	Ind	Fir	3250
Guilder B-6	1750	132	33x5*	33x5*	Con 8R	3⅜x4½	27.3	...	...	.....	G&O	Zen	G	Eis	Bos	B-L	....	B-L 31	...	.....	.....	Cla 366	...	...	5.5	.....	...	Shu 5405	Mer	Ros	Ind	Fir	3250
Hahn B2	1800	136	34x5	34x5	Her OX	4 x5	25.6	L	FP	Non	Chi	Str	G	Con	Bos	B-L	D	.....	U	3	Spi	Cla	B	..	6.00	.....	A	Wis 10A	She	Ros	Opt	Opt	2900
§Larrabee-Deyo X-2	1810	138	34x5*	34x5*	Con 8R-6	3⅜x4½	27.3	L	PC	Opt	Fed	Zen	G	Bos	Bos	B-L	D	B-L 31	U	3	Sne	Sal 148OE	B	¾	5.85	27.6	A	Sal D	She	Gem	Ind	Fir	3350
Maccar EX	....	138	34x5*	34x5*	Wis SU	4 x5	25.6	H	PC	Non	Own	Zen	V	Bos	Bos	B-L	D	B-L 31	U	3	Spi	Sal 1526E	B	¾	5.85	28.0	A	Sal 1525E	Row	Ros	Van	Gdy	3400
Master 11	....	132	33x5*	33x5*	Bud WTU	3¾x5½	22.5	L	PC	Non	Chi	Zen	G	Wes	Wes	Ful	D	Ful LTU8	U	3	Spi	Tim 5511	B	½	5.50	22.0	A	Tim	Det	Ros	StM	Fir	3200
Menominee HT	....	130	34x3½‡	36x5‡	Wis SU	4 x5	25.6	H	PC	Mon	Own	Zen	V	Eis	Bos	Det	D	Cot AAU	U	3	Spi	Wis	W	½	7.75	28.5	A	Shu	Tut	Ros	Std	Fir	3525
Northway Rocket	1390	138	32x4½	32x4½	Own R	3½x5	23.4	L	...	.....	Own	She	..	Bos	Bos	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Ros	.....	.....	2750
Patriot 17R	....	129	35x5*	35x5*	Bud WTU	3¾x5⅛	22.5	L	PC	Non	Mod	Zen	V	Bos	Bij	B&B	P	Cov MA	A	3	The	Tim 6258	W	½	6.25	22.6	A	Fli 50B	Mar	CAS	Bim	Jax	3200
§Reo F	1185	128	33x5*	33x5*	Own F	4½x4½	27.2	D	PS	Non	Own	Joh	V	N-E	N-E	Own	D	Own	A	3	Own	Own	S	½	4.70	17.3	A	Own	Pen	Own	Mot	Fir	2705
Republic 75	....	124°	33x5*	33x5*	Lyc CT	3¾x5	22.5	L	PC	Non	Own	Str	V	Bos	Bos	Ful	D	Ful	U	3	Spi	Eat	I	D	5.65	22.6	A	Eat	Mat	Jac	Nor	Fir	2700
§Ruggles 20R	....	128	34x5*	34x5*	Her O	4 x5	25.6	L	PC	Non	Per	Zen	G	Rem	Rem	B-L	D	B-L 31	U	3	Blo	Col 53000	S	¾	5.12	20.4	A	Col 5000	Det	Jac	Nor	Fir	2950
Selden Pacemaker24	....	144	30x5	30x5	Her O	4 x5	25.6	L	PC	Non	Own	Str	G	Bos	Bos	B-L	D	B-L 31	U	3	.....	Cla	B	F	.....	.....	A	Cla	.....	Ros	Van	.....	3580
Selden Pacemaker26	....	144	30x5	30x5	Con 8R-6	3⅜x4½	27.2	L	PC	Non	Own	Str	G	Bos	Bos	B-L	D	B-L 31	U	3	.....	Cla	B	F	.....	.....	A	Cla	.....	Ros	Van	.....	3580
§Standard 75	....	134°	34x5	34x5	Con J 4	3¾x5	22.5	L	PS	Sim	Lon	Str	V	Eis	Bos‡	B-L	L	B-L 31	U	3	Spi	Tim 6250	W	½	5.60	24.3	A	Tim 1250	Amc	Gem	StM	Fir	3000
Stoughton C	....	131	34x4½*	34x4½*	Own	3⅜x4½	27.3	I	FP	Non	Chi	Zen	V	Rem	Rem	Det	D	Own	U	3	The	Col 53000	S	¾	5.87	20.0	A	Col 5300	Own	Ros	Bim	Gdy	2480
§U. S. U	....	138	34x5*	34x5*	Bud WTU	3¾x5⅛	22.5		PC	Non	Lon	Str	V	Bos	Bos	Ful	D	Ful SUI	U	3	Blo	Cla B	B	½	6.25	25.0	A	Shu 350	She	Lav	Sch	Fir	3400
United 25	....	131	30x5	30x5	Her OX	4 x5	25.6	I	PC	Non	Per	Str	G	Bos	Bos	B-L	D	B-L 31	U	3	Blo	Col 53000	B	¾	5.10	23.7	A	Shu 310	Det	Lav	Van	Fir	2910
Victor 25	1500	131	33x5*	33x5*	Her O	4 x5	25.6	I	FP	Non	Per	Zen	V	A-L	A-L	Ful	D	Ful SU12	U	3	Pic	Col 52000	S	¾	5.1	20.4	B	Col 5000	Det	Lav	Van	Fir	3000
1½ Ton																																	
§Acme 20L	....	136	34x5*	34x5*	Con 8R	3⅜x4½	27.3	L	PC	Non	G&O	Zen	V	Bos	Bos‡	B-L	P	B-L	U	3	Blo	Tim 6258	W	½	6.25	30.0	A	Tim 1452	Det	Ros	Bim	Fir	3500
§Armleder 30	....	148°	34x4‡	34x6‡	Her OX	4 x5	25.6	L	PC	Non	Own	Zen	V	Bos	Bos‡	B-L	D	B-L	U	4	Spi	Tim	W	½	7.25	39.0	A	Tim	She	Ros	StM	Gdy	4400
Atterbury 24R	2450	150°	34x4‡	34x6*	Bud KTU	4 x5¼	25.6	L	PC	Non	Own	Zen	V	Bos	Bos	B-L	D	B-L 31	U	3	Spi	Tim 6462	W	¾	6.50	31.2	A	Tim 1460	S.P	Gem	Arc	Fir	4750
§Autocar F	....	97	34x4‡	34x6‡	Own 2	4¾x4½	18.1	L	SP	Non	Own	Str	G	Bos	L-N†	Own	P	Own F	A	3	Spi	Own F	R	F	8.30	33.2	A	Own F	Del	Ros	Hoo	.....	3800
§Autocar G	....	120	34x4‡	34x6‡	Own 2	4¾x4½	18.1	L	SP	Non	Own	Str	G	Bos	L-N†	Own	P	Own F	A	3	Spi	Own F	R	F	8.30	33.2	A	Own F	Del	Ros	Hoo	.....	3900
Available L-1½	....	154	34x4	34x5	Her O	4 x5	25.6	L	PC	Non	Chi	Zen	G	Bos	Bos	B-L	D	B-L 31	A	3	Spi	Cla B501	½	B	6.25	31.2	A	Shu 5504	Tut	Ros	Bim	Fir	3600
§Bessemer H2	....	144	36x3½	36x5	Con J4	3¾x5	22.5	L	PS	Non	Idl	Str	G	Bos	Bij	B&B	P	B-L 35	A	3	Blo	Wis	R	½	....	....	A	Shu 350	Per	Ros	Sch	Fir	3800
Bessemer H2S	2600	148	36x3½	36x5	Hin 400	4x5¼	25.6	L	FP	Non	Idl	Zen	V	Bos	Bij	B&B	P	B-L 35	A	4	Blo	Wis	R	½	Opt	.....	A	Shu 350	Det	Ros	Van	Fir	4050
Biederman	....	166°	32x5	32x5†	Con 6M–6	3⅜x4½	27.3	L	PC	Han	Own	Zen	G	Del	Del	B-L	D	B-L 31	U	3	Spi	Tim	W	½	7.75	38.0	A	Shu	Mat	Ros	StM	Non	4600
Bridgeport A	2350	144	34x4‡	34x6‡	Bud WTU	3¾x5⅛	22.5	L	PC	Non	G&O	Zen	V	Eis	Bos	B-L	D	B-L 30	U	3	Spi	Tim 6460	W	½	.....	.....	A	Shu 350	.....	Ros	Jon	.....	3000
Brinton C	2500	138	34x4	34x5	Con N	3¾x5	22.5	L	PS	Non	Bus	Str	G	Bos	Non	B-L	D	B-L	U	3	Spi	Tim 6560	W	¾	.....	33.6	...	Tim 1542	Tut	Ros	Sch	.....	3900
Clydesdale 12	....	152	32x6*	32x6*	Con 8R	3⅜x4½	27.3	L	PC	Non	Own	Str	V	Bos	Bos	B-L	D	B-L 31	U	3	Spi	Tim 6258	W	½	6.75	32.4	A	Tim 1250	Per	Ros	Smi	Fir	3600
Clydesdale 14	....	174	32x6*	32x6*	Con 8R	3⅜x4½	27.3	L	PC	Non	Own	Str	V	Bos	Bos	B-L	D	B-L 31	U	3	Spi	Tim 6258	W	½	6.75	32.4	A	Tim 1250	Per	Ros	Smi	Fir	3700
Columbia H	2175	140	34x4	34x6	Hin 300	3¾x5¼	22.5	L	PC	Hin	Lon	Str	V	Spl	Bos	Det	D	D-G	U	3	Spi	Vul	W	F	7.50	.....	A	Shu	Det	Own	StM	.....	3800
§Commerce Super 11	....	142	34x5	36x6	Con S4	4¼x4½	28.9	L	FP	Non	Lon	Zen	V	Bos	Bos	Ful	D	Ful SU12	U	3	U-M	Cla B–501	S	½	5.5	22.0	A	Tim	Bea	Ros	Smi	Fir	3575
Concord EO	2500	135	34x5*	36x6*	Bud GBU	4 x5¼	25.6	L	...	.....	Own	.....	V	Bos	Bos	B-L	D	B-L	U	3	Spi	Tim 6352	W	½	6.2	.....	A	Tim 1452	.....	Ros	Are	Fir	3500
Corbitt D-22	2150	140	34x3½‡	34x5‡	Con J-4	3¾x5	22.5	L	FP	Sim	MeC	Str	V	Eis	Bos‡	B-L	D	B-L 31	U	3	Spi	She W-103	W	½	7.80	25.9	A	She D343	She	Ros	Bim	Fir	4150
Day-Elder G	....	128°	34x4‡	34x4‡	Bud WTU	3¾x5⅛	22.5	L	PC	Non	Bus	Zen	V	Eis	Bos‡	B-L	D	B-L 20B	U	3	Spi	Tim 6258	W	½	6.25	20.7	A	Col 7018	She	Gem	Van	Fir	3600
Day Elder GST	....	128°	34x4‡	34x5‡	Bud WTU	3¾x5⅛	22.5	L	PC	Non	Bus	Zen	V	Eis	Bos	B-L	D	B-L 20B	U	3	Spi	Tim 6258	W	½	6.25	20.7	A	Col 7018	She	Gem	Van	Fir	3600
Defiance	1495	140	34x4	34x6	Wis CAU	3¾x5	22.5	L	PC	Non	Chi	Zen	V	Bos	Bos	Ful	D	Ful LT	U	3	Spi	Own	W	½	7.75	.....	A	She D343	Det	Lav	StM	Fir	3500
Denby 41	....	128	34x5*	34x5*	Her O	4 x5	25.6	L	PC	.....	Lon	Zen	G	A-L	A-L	Ful	D	Ful	U	3	U-P	Col	S	F	5.8	23.2	...	Con	Det	Ros	StM	Fir	3315
Diamond T–T–2	....	144	36x4	36x6	Hin HAA 400	4x5¼	25.6	L	FP	Hin	G&O	Str	V	Bos	Non	Cov	D	Cov JUC	U	3	Spi	Tim 6462	W	½	7.25	28.09	A	Shu 510	Mat	Ros	StM	.....	4500
Diehl B	....	129	.....	.....	H–8 7000	3½x5	19.6	L	PS	Non	.....	.....	V	Bos	Non	M-E	D	Dur O2500B	U	3	M-E	Ter S327	I	D	5.36	.....	...	Sal 1544E	Row	Ros	Way	Non	2500
Dixon 3	2650	148	36x5	36x6	Con J-4	3¾x5	22.5	L	FP	Pie	.....	G&O	Zen	G	Bos	Non	Ful	D	Ful GU-8	U	4	Spi	Tim 6460	W	F	Opt	Opt	A	Tim 1520	S.P	Ros	StM	.....	4300
Duplex GH	....	138	35x5*	36x6*	Bud WTU	3¾x5½	22.5	L	PC	Non	Mod	Zen	G	Wes	Wes	Cov	D	Cov	U	3	Pet	She	W	½	6.50	26.0	A	She	Pen	Ros	Mot	Fir	3900
Federal S-23	....	144	36x3½‡	36x5‡	Con J-4	3¾x5	22.5	L	FP	Non	Own	Zen	V	Eis	Rem†	B&B	P	Own S23	A	4	Pet	Tim 6460	W	½	6.50	26.0	A	She	Pen	Ros	Mot	Fir	3900
Fisher Fast Freight	1295	146	30x5	32x6	Con S4	4¼x4½	28.9	L	FP	Non	.....	Str	V	.....	.....	.....	D	.....	U	3	Spi	.....	W	½	6.50	26.0	A	She	Pen	Ros	Mot	Fir	3900

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For full name and address of manufacturer and information regarding complete line see page 51

Trade Name and Model	General: Chassis Price	General: Standard Wheelbase (inches)	General: Tire Size §§ Front (inches)	General: Tire Size §§ Rear (inches)	Engine: Make and Model	Engine: Bore and Stroke (inches)	Engine: N.A.C.C. Rated H.P.	Engine: Valve Arrangement	Engine: Oiling System	Engine: Governor (Make)	Engine: Radiator (Make)	Engine: Fuel System: Carburetor (Make)	Engine: Fuel System: Fuel Feed	Electrical System: Ignition System (Make)	Electrical System: Generator and Starter (Make)	Clutch: Make	Clutch: Type	Gearset: Make and Model	Gearset: Location	Gearset: No. of Forward Speeds	Universals (Make)	Rear Axle: Make and Model	Rear Axle: Final Drive	Rear Axle: Type	Gear Ratios: Total Reduction in High	Gear Ratios: Total Reduction in Low	Brakes, Location	Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Rims (Make)	Chassis Weight (lbs.) (stripped)
2 Ton—Con'd																																	
Day Elder HSM	....	144°	34x4‡	34x5‡	Bud KBU	4 x5¼	25.6	L	PC	Non	Bus	Zen	V	Eis	Bos‡	P-L	D	B-L 31	U	3	Spi	Tim 6462	W	½	7.75	37.2	A	Col 7018	She	Gem	Van	Fir	4300
Day Elder HSMT	....	144°	34x4‡	34x6‡	Bud KBU	4 x5¼	25.6	L	PC	Non	Bus	Zen	V	Eis	Bos‡	B-L	D	B-L 31	U	3	Spi	Tim 6462	W	½	7.75	37.2	A	Col 7018	She	Gem	Van	Fir	4300
Denby 33	....	144	36x3½	36x7	Con J-4	3¾ x5	22.5	L	PC	....	Lon	Zen	G	Eis	....	Ful	D	Ful	U	4	U-P	Cla	I	D	7.25	29.0	...	Con	Det	Ros	StM	....	3740
Dixon	....	145	....	....	Con J-4	3¾ x5	22.5	L	FP	Pie	G&O	Zen	G	Eis	Bos	Ful	D	Ful GU7	U	4	Har	Tim 6460	W	½	....	....	A	Tim 1520	S.P	Ros	....	Fir	4450
Duplex A	....	160	34x4‡	36x7‡	Hin HAA	4 x5¼	25.6	L	PC	Non	Mod	Str	G	Eis	Wes	Cov	D	Cov RU3C	U	3	Pet	She W-103	W	½	7.75	30.0	A	She 33FA	Pen	Ros	Mot	Fir	4400
Eagle 104	2395	130	34x4‡	34x8	Bud KTU	4 x5¼	25.6	L	PC	Non	Own	Zen	G	Eis	Non	Cov	D	Cov MUC	U	3	M-E	Rus 6005-I	I	D	8.31	....	A	Col 7000	Cha	Ros	StM	Fir	4300
Fageol 235	3300	136	34x4	34x7	Wau FU	4 x5¾	25.6	L	PC	Wau	Own	Zen	V	Spl	Spl	B-L	D	Own A	U	7	Spi	Tim 6462	W	½	5.60	59.7	A	Tim 1460DXZ	Mat	Ros	....	....	5500
Forschler D	....	144	34x4	36x7	Con C-4	4 ⅛x5¼	27.2	L	PC	Dup	Own	Zen	G	Bos	Opt	Ful	D	....	U	3	Har	....	W	....	....	....	....	....	Own	Ros	Smi	Non	4735
Fulton C	1985	137	34x4	34x8	Bud WTU	3¾ x5½	22.5	L	PC	Non	G&O	Zen	G	Sim	Non	Cov	⅓	Cov MUC	U	3	Spi	She W-103	W	½	8.66	....	....	Col 7013	....	Lav	Hoo	Non	4900
Gotfredson 41	....	146½	36x6*	40x8*	Bud KBUI	4 x5¼	25.6	L	PC	Sim	McC	Zen	V	RBo	Rem	B&B	P	B-L 35	U	4	Spi	Tim 6462	W	½	7.25	38.7	A	Tim 1460	Det	Gem	M-M	Fir	5300
Grass Premier 70	2650	144	34x5†	34x7†	Wau V	4 x5¼	27.2	L	PC	Opt	Chi	Str	V	Eis	Eis	B-L	D	B-L 35	U	4	Spi	Tim 6462	W	½	7.25	36.2	B	Con	Det	Ros	Bim	Fir	4400
Guilder E	2975	152	36x4	36x8	Bud GTU	4 x5¼	25.6	L	PC	Pie	G&O	Zen	G	Eis	Bos	B-L	D	B-L 51	U	4	M-E	Wis DD	W	F	7.75	41.0	...	Wis	Mer	Ros	Van	Non	5100
G.W.W	2250	147	36x6*	38x7*	Wis SU	4 x5	25.6	H	PC	Non	Own	Zen	G	Bos	Bos	Ful	D	Ful GU5	U	4	Blo	Cla 2D	I	D	8.00	38.4	...	Shu 350	G-C	Lav	Bim	Fir	4100
Hahn K	2850	140°	36x4	36x7	Con K4	4 ⅛x5¼	27.2	L	FP	Pha	Chi	Str	G	Bos	Del	B-L	D	....	U	4	Spi	Tim 6462	U	...	7.00	....	A	Tim 1520	She	Ros	Opt	Opt	4700
Hug H4	2175	118	36x6	36x6†	Bud WTU	3¾ x5 ⅛	22.5	L	PC	Han	Per	Zen	V	os	Non	Ful	D	Ful	U	4	Blo	Wis	R	½	7.75	37.2	A	Wis	Tut	Ros	Van	Fir	4260
§Indiana 20	....	150°	36x4	36x7	Own 40	4 ⅜x5½	30.6	L	PC	Pie	McC	Str	G	Eis	Rem‡	B	P	B-L 35	A	4	Spi	She W-103	W	½	7.75	41.5	A	She D-370	She	Woh	Bim	....	5335
International 43	....	130	36x4‡	36x7‡	Own 43	3¾ x5	22.5	L	SP	Own	Own	Own	G	RBo	Own	Own	D	Own 43	A	4	Own	Own 43	I	D	9.00	53.1	B	Own 43	....	Own	Own	....	4790
Kearns N1	....	136°	34x4	34x7	Her O	4 x5	25.6	...	SP	....	Own	Zen	...	Bos	....	Ful	D	Ful	U	3	....	She	W	....	....	....	....	....	....	Ros	....	....	....	....
Kenworth M	3100	150	36x4	36x7	Bud KBU	4 x5¼	25.6	L	PC	Non	Own	Str	V	Bos	Bos†	B-L	P	B-L 35	U	4	Spi	She W-103	W	½	8.66	46.8	A	She D343	Lah	Ros	Smi	....	4620
Krebs 44	....	160°	36x4‡	36x7‡	Con S4	4 ¼x4½	28.9	L	PC	Pie	Own	Zen	V	Bos	Bos	B-L	D	B-L 35	U	4	Spi	Tim 6462	W	½	8.75	46.8	A	Tim 1460	Mat	Ros	Smi	Fir	5000
Krebs 46	....	160°	36x4‡	36x7‡	Con S8R	3 ⅝x4½	27.3	L	PC	Pie	Own	Zen	V	Bos	Bos	B-L	D	B-L 31	U	3	Spi	Tim 6462	W	½	8.75	35.0	A	Tim 1460	Mat	Ros	Smi	Fir	4800
LeMoon GP-2	....	Opt	34x4	34x7	Con S4	4 ¼x4½	28.9	L	FP	Non	Chi	Str	G	Bos	Bos	B-L	D	B-L 31	U	3	Spi	Tim 6460	W	½	7.75	....	A	Tim 1520	Tut	Ros	StM	....	6300
Luedinghaus	....	145°	36x4‡	36x8‡	Wau RU4R	4 ¼x5¾	28.9	L	PC	Non	Own	Zen	..	Spl	Non	B&B	P	D-G	U	4	....	Tim	W	F	....	....	A	Shu 510	....	Lav	....	....	4900
Maccar V1	....	162	36x4	36x8‡	Wis TAU	4 x6	25.6	L	PC	Pie	Own	Zen	V	Eis	Bos	B-L	D	B-L 35	U	4	Spi	Tim 6566	W	½	7.75	41.5	A	Tim	Row	Ros	Day	....	5300
Maccar V-3	....	162	36x4‡	36x8‡	Wis UAU	4 ¼x6	28.9	L	PC	Pie	Own	Zen	V	Eis	Bos‡	B-L	D	B-L 35	U	4	Spi	Tim 6566	W	½	7.75	41.5	A	Tim 1526	Row	Ros	Day	....	5300
§Mack AB	3300	146½	36x4	36x4‡	Own AB	4 ¼x5	28.9	L	PS	Own	Own	Str	G	Spl	N–E‡	Own	D	Own AB	U	4	Spi	Own AB	C	D	*6.99	33.8*	B	Own AB	Mer	Own	....	....	....
§Mack AB	3750	146½	36x4	36x4‡	Own AB	4 ¼x5	28.9	L	PS	Own	Own	Str	G	Spl	N–E‡	Own	D	Own AB	U	4	Spi	Own AB	R	F	*7.60	36.8*	B	Own AB	Mer	Own	....	....	....
Moreland EC	3780	178	34x5*	34x5*	Con K-4	4 ⅛x5¼	27.3	L	FP	Non	Own	....	V	Spl	Opt	B-L	D	B-L 51	U	4	Pet	Tim 6414	W	½	6.00	29.0	...	Tim 1550	U.S	Ros	Bud	....	4590
§Nash 3018	2150	144	34x4‡	34x7‡	Own 4	3¾ x5¼	22.5	L	PS	Sim	....	Str	G	Eis	A-L	B&B	P	D-G C	A	4	Own	Cla 2D	I	D	9 00	39.0	B	Own 3018	Har	Lav	A-W	....	3850
Nash 4017	2750	124	36x6	36x6‡	Bud HU	4 ¼x5½	28.9	L	PC	Sim	....	Str	G	Eis	Non	B&B	P	Own 4017	A	4	Own	Own 4017	I	D	8.50	42.3	B	Own 4017	Har	Lav	....	....	6250
National M	....	137°	34x5*	36x6*	Wau Y	4 x5¼	25.6	L	PC	....	Bus	Zen	G	Bos	Bos	B-L	D	Ful GU7	U	4	M-E	She 103	W	½	7.00	23.3	A	Tim 1520	Mat	Ros	Van	Fir	4000
Noble B31	2900	162	36x4‡	36x7‡	Bud GTU	4 x5¼	25.6	L	PC	Pie	Chi	Str	V	Eis	Bos	Ful	D	Ful GU7	U	4	M-E	She 103	W	½	8.66	41.5	A	She D-343	Tut	Lav	Bim	Fir	4850
O.K	2250	149	36x3½	36x5	Bud ITU	4 x5½	25.6	L	PC	Non	Own	Zen	V	Eis	Non	Ful	D	Ful TU3	U	3	Har	Wis 800H	W	½	9.33	....	...	Shu 510	Tut	Ros	Bim	Gdy	4310
Oshkosh AW	3080	130	36x6*	36x6*	Wis SU	4 x5	25.6	H	PC	Dup	Own	Str	V	A-L	A-L	B-L	D	B-L 35	U	4	Pet	Own A	B	F	8.00	33.0	A	Own A	Tut	Ros	Roy	Fir	4250
Oshkosh AAW	3180	165	36x6	36x6*	Wis SU	4 x5	25.6	H	PC	Dup	Own	Str	V	A-L	A-L	B-L	D	B-L 35	U	4	Pet	Own AA	B	F	8.00	33.0	A	Own AA	Tut	Ros	Roy	Fir	....
§Patriot X9L	....	146	36x4	36x7	Hin 400	4 x5¼	25.6	L	PC	Non	Own	Zen	V	Eis	Bij	Cov	B	Ful G7	A	4	The	Tim 6566	W	F	8.50	....	A	Shu 510	Mar	Ros	Bim	....	4400
Penn	2300	144	34x5	38x7	Bud WU	3¾ x5 ⅛	21.0	L	PC	Non	G&O	Zen	G	Bos	Bos	Ful	D	Ful-SU	U	3	Spl	She W1501	W	½	9.25	37.0	...	Tor AA3	Row	Ros	Smi	Gdy	3975
Pennford	775	138	30x3½	34x5	Himico	3¾ x4	22.5	L	SP	Non	Ford	Hol	G	Ford	Ford	Hin	D	Hin	A	3	U-P	She W1002	W	½	7.75	....	...	Ford	Row	Ford	Hoo	Gdy	2800
Pierce Arrow XA	3300	150	36x4‡	36x5	Own XA	4 x5½	25.6	T	FP	Own	Own	Str	P	Del	Del	Own	D	Own XA	A	4	Spi	Own XA	W	½	8.5	44.2	A	Own XA	S.P	Own	....	Opt	6280
Rainier R28	3090	157	34x4‡	34x8‡	Con K4	4 ⅛x5¼	27.2	L	FP	Pie	Bus	Zen	V	Eis	Del‡	B-L	D	B-L 35	A	4	Spi	She W-103	W	½	7.75	41.5	A	She D-370	S.P	Ros	Jon	....	4900
Rainier R28	3190	175	34x4‡	34x8‡	Con K4	4 ⅛x5¼	27.2	L	FP	Pie	Bus	Zen	V	Eis	Del‡	B-L	D	B-L 35	A	4	Spi	She W-103	W	½	7.75	41.5	A	She D-370	S.P	Ros	Jon	....	5050
Rehberger A	....	162	36x4	36x7	Bud KTU	4 x5¼	25.6	L	PC	K.P	Bus	Str	G	RBo	Bos‡	B-L	D	B-L 35	U	4	Spi	Tim 6462	W	½	7.75	41.5	A	Shu 510	Del	Gem	Van	Fir	5060
Republic 11X	....	144°	34x4‡	34x6‡	Con J4	3¾ x5	22.5	L	FP	Pha	Own	Str	V	Bos	Bos‡	Ful	D	Ful	U	3	Spi	Eat	I	D	7.20	28.8	B	Eat	Mat	Jac	Van	Fir	4000
Ruggles 41	....	148	30x5*	34x7*	Her O	4 x5	25.6	L	PC	Non	Per	Zen	G	Bos	Rem‡	B-L	D	B-L 31	U	3	Spi	Wis 66F	R	F	7.00	37.4	A	Col 7000	Det	Jac	Nor	Fir	4250
Sandow JS	....	144	36x4	36x7	Her O	4 x5	25.6	L	PC	Non	Chi	Zen	...	Eis	Bos	Ful	D	Ful TU3	....	....	Spi	She W-103	I	D	8.66	....	....	She 343	Own	Ros	....	....	4000
§Schacht G	3200	156	36x4‡	36x7‡	Wis UAU	4 ¼x6	28.9	L	PC	Dup	Own	Zen	G	Bos	Non	B&B	P	Own G	A	4	Spi	Own G	W	F	8.66	41.0	B	Own G	She	Own	StM	....	6200
Schacht J	2600	158	36x4	36x7	Wis SU	4 x5	25.6	H	PC	Non	Own	Zen	V	Bos	Non	Ful	D	Ful GU7	U	4	Blo	Wis 60D	R	½	7.00	33.6	A	Shu 510	She	Ros	....	Non	4000
Selden 33	....	146	34x4‡	34x6‡	Con K-4	4 ⅛x5¼	27.2	L	FP	Pha	Lon	Str	G	Eis	Bos	B-L	D	B-L 35	U	4	Spi	Tim 6410	W	½	Opt	Opt	A	Tim 1454	Per	Ros	Van	Fir	4400
Sterling DW-12	....	142	36x4	36x7	Own FU	4 x5¾	25.6	L	PS	Wau	Own	Zen	V	Eis	....	B-L	D	B-L 35	U	4	Spi	Tim 6462	W	½	6.5	34.8	...	Tim 1460	Mat	Ros	Hoo	....	5180
Stewart 18	1890	160	34x4‡	34x6‡	Lyc C	4 x5	25.6	L	PC	Non	Own	Zen	G	Rem	Rem	Ful	D	Ful LTU-4	U	3	Spi	Cla B-501	B	¾	6.28	25.1	B	Col	Det	Gem	Cla	Fir	3400
Stoughton D	....	140	36x4	36x7	Own	4 ⅛x5¼	....	L	FP	Sim	Own	Zen	G	Eis	....	B-L	...	R-L35	U	4	The	She W103	W	½	8.66	46.3	...	She D343	Own	Ros	Bim	Gdy	4600
Traffic 4000C	1695	132	34x3½	34x5‡	Con N-4	3¾ x5	22.5	L	FP	Non	Own	Car	G	Bos	Bos†	Cov	D	Cov MUNC	U	3	The	Rus 34-I	I	D	7.00	25.6	A	Own	Det	Own	Opt	Fir	3175
Transport 36	....	140	36x3½	36x6‡	Bud KTU	4 x5½	25.6	L	PC	Dup	Mod	Zen	G	Eis	Rem‡	Ful	D	Ful GU7	U	4	Blo	Cla I-D	I	D	7.25	34.8	B	Col 7000	Det	Jac	Mot	....	4300
United 32	....	148	34x4	34x7	Her OX	4 x5	25.6	L	PC	Non	Per	Str	G	Bos	....	B-L	D	B-L 31	U	3	Blo	Wis 40	R	½	6.00	24.5	A	Shu 510	Det	Lav	Van	....	3740
§United 35	....	148	34x5*	34x7‡	Her OX	4 x5	25.6	L	PC	Non	Per	Str	G	Bos	Non	B-L	D	B-L 31	U	3	Blo	Wis 51	R	½	7.75	30.7	A	Shu 310	Det	Lav	Van	Fir	3810
§U.S. NW24	....	144	36x4‡	36x6‡	Bud WTU	3¾ x5½	22.5	L	PC	Non	Lon	Str	V	Bos	Opt	Ful	D	Ful LTU5	U	3	Blo	She W-103	W	½	8.75	35.0	...	Shu 350	She	Lav	Sch	....	4550
Victor 50	2100	142	34x4‡	34x7‡	Her OX	4 x5	25 6	L	FP	Pie	Per	Zen	G	Eis	....	Ful	D	Ful GU10	U	4	Blo	Wis 66	R	½	7.0	33.6	A	Shu 5410	Det	Lav	Smi	....	4500
Wachusett K	3200	154	....	....	Con K4	4 ⅛x5¼	27.2	L	FP	Non	G&O	Zen	V	Bos	Bos	B-L	D	B-L 35	A	4	Spi	Tim 6460	W	F	7.75	41.5	...	Tim 1520	....	Ros	....	Fir	4800
White 20	2950	168	36x4‡	36x7‡	Own GK	3¾ x5 ½	22.5	L	SP	Non	Own	Zen	G	....	....	Own	D	Own 20	A	4	Spi	Own 20	B	½	9.25	39.87	A	Own 20	....	Own	....	....	4680
Witt-Will P	2650	168	36x3½	36x7	Con C-4	4 ⅛x5¼	27.2	H	FP	Pie	Own	Zen	G	Eis	Non	B-L	D	B-L 35	U	4	Spi	Tim 6460	W	½	7.10	....	...	Tim 1520	Del	Ros	Arc	Fir	4600
2¼ Ton																																	
Larabee XH	3200	168	34x7	34x7	Con 6B-6	3¾ x5	22.5	L	PC	Opt	Fed	Zen	G	Bos	Bos	B-L	D	B-L 31	U	3	Spi	She W–1501	W	½	6.50	26.7	A	She D 485	She	Ros	Smi	Fir	4450
Selden Roadmaster	....	154	32x6*	36x8*	Con 6B–6	3¾ x5	33.7	L	FP	Non	Own	Str	V	Bos	Bos	B-L	D	B-L 35	U	4	.....	Cla 720	B	½	Opt	Opt	A	Tim 1452	.....	Ros	Van	Fir	4740
2½ Ton																																	
§Ace 56	3350	156°	36x4	36x8*	Bud EBU	4¼x5½	28 9	H	PC	Pie	Own	Zen	V	Eis	Wes	B-L	D	B-L 50	A	4	U-M	Tim 6566	W	F	8.50	45.5	...	Tim 1544B	Mat	Ros	Day	Fir	5650
Acorn 50	3250	156	36x4‡	36x8‡	Bud ETU	4¼x5½	28.9	L	PC	McK	Chi	Zen	G	RBo	Non	B-L	D	B-L 51	A	4	Spi	Tim 6560	W	F	8.50	45.4	A	Tim 1542	Tut	Ros	Pru	....	5500
Amer.-La France W	3950	Opt	36x4	36x7	Own 2R	4¼x6	28.9	L	PS	Own	Bus	Zen	V	Spl	Bos‡	Own	D	Own 2R	A	4	Own	Own 2R	R	F	7.57	40.6	B	Own 2R	Mer	....	Day	....	6600
§Armleder 50	....	152°	36x4	36x8	Bud EBUI	4¼x5½	28.9	L	PC	Han	Own	Zen	V	Bos	Bos‡	B-L	D	B-L	U	4	Spi	Tim	W	F	9.25	49.5	A	Tim	She	Ros	StM	Gdy	5300
Atterbury 22C	3575	156°	36x4‡	36x4†	Con K-4	4 ⅛x5¼	27.2	L	FP	Pie	Own	Zen	V	Bos	Bos	B-L	D	B-L 51	A	4	Spi	Tim 6560	W	F	9.25	49.4	A	Tim 1544B	S.P	Gem	Arc	Fir	5670
Autocar H	....	114	34x6	36x10	Own H	4x5½	25.6	L	SP	Pha	Own	Str	G	Bos	L-N‡	Own	P	Own Y	A	4	Spi	Own H	R	F	7.72	46.3	A	Own H	Del	Ros	Hoo	....	5500
Autocar K	....	138	34x6	36x10	Own H	4 x5½	25.6	L	SP	Pha	Own	Str	G	Bos	L-N‡	Own	P	Own Y	A	4	Spi	Own H	R	F	7.72	46.3	A	Own H	Del	Ros	Hoo	....	5500

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For full name and address of manufacturer and information regarding complete line see page 51

Trade Name and Model	General: Chassis Price	Standard Wheelbase (inches)	Tire Size §§: Front (inches)	Tire Size §§: Rear (inches)	Engine: Make and Model	Bore and Stroke (inches)	N.A.C.C. Rated H.P.	Valve Arrangement	Oiling System	Governor (Make)	Radiator (Make)	Fuel System: Carburetor (Make)	Fuel System: Fuel Feed	Electrical System: Ignition System (Make)	Electrical System: Generator and Starter (Make)	Clutch: Make	Clutch: Type	Gearset: Make and Model	Gearset: Location	Gearset: No. of Forward Speeds	Universals (Make)	Rear Axle: Make and Model	Rear Axle: Final Drive	Rear Axle: Type	Gear Ratios: Total Reduction in High	Gear Ratios: Total Reduction in Low	Brakes, Location	Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Rims (Make)	Chassis Weight (lbs.) (stripped)
2½ Ton—Con'd																																	
Winther 44	3100	161	34x5	34x7	Wis SU	4 x5	25.6	H	FP	Non	Own	Str	V	Bos	Bos	Ful	D	Ful G7	U	4	Pet	Own	I	. .	7.00	33.6	B	Tim	Mat	Lav	Own	.....	4375
Witt-Will 8	2950	146	36x4‡	36x8	Con K-4	4½x5¼	27.2	L	FP	Pie	Own	Zen	V	Eis	Non	B-L	D	B-L 51	U	4	Spi	Tim 6560	W	F	8.25	40.0	A	Tim 1544	She	Ros	Arc	Fir	5000
3 Ton																																	
§Acme 60L	....	156	36x4‡	36x10	Con L-4	4½x5½	32.4	L	FP	Dup	G&O	Zen	V	Eis	Del‡	B&B	P	Cot R	U	4	Blo	Tim 6560	W	F	8.50	42.0	A	Tim 1540B	Det	Ros	Int	.....	5050
Autocar H	....	114	34x6	36x10	Own H	4 x5½	25.6	L	SP	Pha	Own	Stu	G	Bos	L-N‡	Own	P	Own Y	A	4	Spi	Own H	R	F	7.72	46.3	A	Own H	Del	Ros	Hoo	.....	5500
Autocar K	....	138	34x6	36x10	Own H	4 x5½	25.6	L	SP	Pha	Own	Str	G	Bos	L-N‡	Own	P	Own Y	A	4	Spi	Own H	R	F	7.72	46.3	A	Own H	Del	Ros	Hoo	.....	5600
Autocar HPDS	....	114	34x6‡	36x12‡	Own H	4 x5½	25.6	L	SP	Pha	Own	Str	G	Bos	L-N‡	Own	P	Own Y	A	4	Spi	Own Y	R	F	8.72	63.5	A	Own H	Del	Ros	Hoo	.....	6000
Brockway K13	....	153	36x4	36x8	Con K4	4⅛x5¼	27.2	L	FP	Pha	Bus	Zen	V	Eis	L-N	B-L	D	B-L 35	A	4	Spi	Tim 6566	W	F	7.75	.....	A	Tim 1542	She	Ros	Day	Non	5260
Brockway K16	....	154⅝	36x4	36x8	Con K4	4⅛x5¼	27.2	L	FP	Pha	Bus	Zen	V	Eis	L-N	B-L	D	B-L 55	A	7	Spi	Tim 6566	W	F	7.75	.....	A	Tim 1542	She	Ros	Day	Non	5260
Brockway KR	....	156	36x4	36x8	Con L4	4½x5½	32.4	L	FP	Pha	Bus	Zen	V	Eis	L-N	B-L	D	B-L 55	A	4	Spi	Tim 6566	W	F	7.75	.....	A	Tim 1542	She	Ros	Day	Non	5760
§Clinton 65	3550	184	34x5‡	34x5†	Bud ETU	4¼x5½	28.9	L	PC	K.P.	Own	Zen	G	Bos*	Bos	B-L	D	B-L 55	A	4	M-E	Tim 6566	W	F	8.50	45.5	A	Tim 1544B	Per	Ros	StM	.....	5925
Clydesdale 6	....	163	36x5	36x5†	Con L4	4½x5½	32.4	L	FP	Own	Own	Zen	V	Bos*	Bos	B-L	D	B-L 51	A	4	Spi	Tim 6566	W	F	9.25	49.4	A	Tim 1544B	Per	Ros	Smi	Non	5850
Clydesdale 6X	....	163	36x4	36x8	Con K4	4⅛x5¼	27.2	L	FP	Own	Own	Zen	V	Bos	Bos	B-L	D	B-L 51	A	4	Spi	Tim 6566	W	F	9.25	49.4	A	Tim 1544B	Per	Ros	Smi	Non	5700
§Columbia K	3450	150	36x5	36x12	Hin 500	4¼x5½	28.9	L	PC	Hin	Lon	Str	V	Spl	Bos	Det	D	D-G	A	4	Spi	Vul	W	F	9.50	.....	. .	Shu	Det	Own	Van	.....	5130
Concord JL	3600	170	36x6*	36x8	Bud EBU	4¼x5½	28.9	L	PC	Pie	Own	Zen	V	Eis	Eis	B-L	D	B-L 50	U	4	Spi	Tim 6560	W	F	9.25	49.4	A	Tim 1544	....	Ros	Arc	Fir	5500
Corbitt R	....	158	36x4‡	36x8‡	Con L-4	4½x5½	32.4	L	FP	Sim	McC	Str	V	Eis	Bos‡	B-L	D	B-L 51	U	4	Spi	She W-21	W	½	10.30	55.1	A	She 3FA10	She	Ros	Smi	.....	6160
Day-Elder J	....	156	36x4‡	36x8‡	Bud EBU	4¼x5½	28.9	L	PC	Mon	Bus	Zen	V	Eis	Bos‡	B-L	D	B-L 51	U	4	Har	Tim 6566	W	F	9.25	49.5	A	Tim 1544	She	Gem	Van	Fir	6100
Denby 35	....	155	36x4	36x8	Con K-4	4⅛x5¼	27.2	L	PC	....	Lon	Zen	G	Eis	.....	Ful	D	Ful	U	4	U-P	Cla	I	D	8.15	45.3	. .	Con	Det	Ros	Smi	.....	5000
Double Drive TT	4000	144	36x6‡	36x6‡	Bud ETU	4¼x5½	28.9	L	PC	Pie	Lon	Zen	V	Spl	Opt	Det	D	Own D. T. P.	A	4	Own	Own D. T. T.	W	½	8.50	39.5	B	Own FTT	Tut	Ros	Std	.....	6250
Duplex AC	....	165	34x5‡	36x8	Bud EBUI	4¼x5½	28.9	L	PC	Opt	Mod	Str	V	Eis	Non	B-L	D	B-L 50	U	4	Pet	She W21	W	F	7.75	45.4	A	She 370	Pen	Ros	Mot	Fir	5500
Fageol 340	4000	150	36x5	36x10	Wau CU	4⅜x5¾	30.6	L	PC	Wau	Own	Zen	V	Spl	Spl	B-L	D	Own B	A	7	Spi	Tim 6566	W	F	5.60	59.5	A	Tim 1544B	Mat	Ros	.....	.....	7000
Fageol 360	5250	150	36x6*	36x6†	HaS	4¼x5½	28.9	H	PC	H-S	Lon	Zen	V	Del	Del	B-L	D	Own B	A	7	Spi	Tim 6566	W	F	5.60	59.5	A	Tim 1544B	Mat	Ros	Bud	.....	6500
Forschler E	....	144	36x4	36x8	Con C-4	4⅛x5¼	27.2	L	PC	Dup	Own	Zen	V	Bos	Non	Ful	D	.....	. .	4	Har	.....	W	½	.....	.....	. .	.....	Own	Ros	Smi	.....	5200
F.W.D. B	4200	124	36x6‡	36x6‡	Wis A	4¾x5½	36.1	T	PC	Pie	McC	Str	G	Eis	N-E‡	H-S	D	Cot DAF	A	3	Own	Own B	B	F	8.90	35.6	B	Own B	Tut	Ros	Sch	.....	6300
Gary Y30	3750	150	36x6*	40x8*	Bud YBU-I	4½x6	32.4	L	PC	McC	Chi	Str	V	Eis	....	B-L	D	B-L	A	4	Spi	Tim	W	F	8.50	41.0	A	Tim	Mer	Ros	StM	.....	5680
Gotfredson 60	....	152½	36x4‡	36x10‡	Bud EBUI	4¼x5½	28.9	L	PC	Sim	McC	Zen	V	RBo	Non	B-L	D	B-L 51	A	4	Spi	Tim 6562	W	F	9.25	49.4	B	Tim 1526	Det	Ros	Day	Non	6200
Gramm-Bernstein 30	....	150	36x5	36x10	Con L4	4½x5½	32.4	L	PC	Pie	Own	Str	G	Eis	A-L	Ful	D	Ful GU7	A	8	Own	She W-21	W	½	5.66	46.5	B	She 370	Per	Ros	Smi	Fir	6640
Guilder H	3500	152	36x5	36x10	Bud ETU	4¼x5½	28.9	L	PC	Pie	G&O	Zen	G	Eis	Bos	B-L	D	B-L 51	U	4	M-E	Wis	W	F	7.75	42.0	. .	Shu 5550	Mer	Ros	Van	Non	5600
Hahn L	3750	149°	36x4	36x10	Con L4	4½x5½	32.4	L	FP	Pha	Chi	Str	G	Bos	Del	B-L	D	.....	U	4	Spi	Tim 6566	W	. .	8.5	.....	A	Tim 1542	Mer	Ros	Opt	Opt	5900
International 63	....	140	36x5‡	36x8‡	Own 63	4¼x5	28.9	L	SP	Own	Own	Own	G	RBo	Rem‡	Own	D	Own 63	U	4	Own	Own 63	I	D	9.00	53.1	B	Own 63	.....	Own	Own	.....	5660
Kenworth K-S	3750	160	36x4‡	36x8‡	Bud EBU	4¼x5½	28.9	L	PC	Non	Own	Str	V	Bos	Bos†	B&B	P	Cot RU	U	4	Spi	She W-21	W	½	8.66	46.8	A	She D-370	Lah	Ros	Smi	.....	6300
Krebs 64	....	163°	36x5‡	36x10‡	Con L-4	4½x5½	32.4	L	PC	Pic	Own	Zen	V	Bos	Bos	B-L	D	B-L 55	A	7	Spi	Tim 6566	W	F	9.25	87.8	A	Tim 1544	Mat	Ros	Smi	Fir	6100
§Maccar H1	....	175	36x4‡	36x5†	Wis UAU	4¼x6	28.9	L	PC	Pie	Own	Zen	V	Eis	Bos‡	B-L	D	B-L 51	U	4	Spi	Tim 6566	W	F	8.50	45.4	A	Tim 1544B	Row	Ros	Day	.....	6300
Maccar H-3	....	175	36x4‡	36x5†	Wis VAU.	4½x6	32.4	L	PC	Pie	Own	Zen	V	Eis	Bos‡	B-L	D	B-L 51	U	4	Spi	Tim 6566	W	F	8.50	45.4	A	Tim 1544B	Row	Ros	Day	.....	6300
Master 45	....	154°	36x6	36x10	Jackson	41/4	28.9	. .	FP	....	.....	Str	. .	Spl	.....	Ful	. .	Ful 60	. .	4	Spi	Tim	W	. .	.....	.....	A	Tim	.....	Ros	.....	.....	.....
Moreland AC-Bus	4700	187	36x6*	36x6†	Con L-4	4½x5½	32.4	L	FP	Non	Own	....	V	Spl	Opt	B-L	D	Tim 6516	W	F	Pet	Tim 1550	U.S	Ros	Bud	.....	5660
National T	....	152	36x5‡	36x10‡	Wau CU	4⅜x5¾	30.6	L	PC	Wau	Bus	Zen	G	Bos	Non	H-S	O	B-L 51	A	4	Spi	Tim 6566	W	F	8.50	45.5	A	Tim 1544B	Mat	Ros	Van	.....	6200
Neteo DHX	3700	170	36x5‡	36x10‡	Con L-4	4½x5½	32.5	L	FP	Pha	Bus	Zen	V	Eis	Wes‡	B-L	D	B-L 55 Max	A	7	M-E	Tim 6560	W	F	8.50	90.7	A	Tim 1542B	Mat	Gem	Smi	Opt	5825
Noble D-52	3500	162	34x4	36x10	Bud ETU	4¼x5½	28.9	L	PC	MeC	Chi	Zen	V	Eis	Wes	Ful	D	Ful	A	8	Blo	She W21	W	½	8.75	96.2	A	She 370	Tut	Lav	Bim	Non	5800
Northway C3	3500	161°	36x5	36x10	Own C	4 x6	25.6	H	. .	.....	G&O	She	V	Bos	Bos	.....	. .	.....	. .	. .	. .	.....	. .	. .	.....	.....	. .	.....	.....	Ros	.....	.....	6060
Patriot X8W	....	156	36x5‡	36x8‡	Hin 200	4½x5½	32.4	L	PC	Non	Own	Str	V	Eis	Non	Cov	D	Cov RAK4	A	4	The	.....	W	F	10.0	.....	A	Shu 5550	Mar	Ros	Bim	.....	5400
Pierce-Arrow XB	3500	150	36x5‡	36x5	Own XB	4 x5½	25.6	T	FP	Own	Own	Str	P	Del	Del	Own	D	Own XB	A	4	Spi	Own XB	W	½	9.25	48.1	A	Own XB	S.P	Own	Bet	Opt	6280
§Rehberger B-1	....	192	36x6*	36x6†	Bud YBU	4½x6	32.4	L	PC	.....	Bus	Str	G	RBo	Bos	B-L	D	B-L 55	U	4	Spi	Tim 6566	W	F	6.00	32.1	A	Shu 5550B	Del	Gem	Bud	Fir	6510
§Rehberger B-2	....	192	36x6*	36x6†	Bud BUS	4 x5⅛	38.4	L	PC	....	Bus	Str	V	RBo	Bos	B-L	D	B-L 55	U	4	Spi	Tim 6566	W	F	6.00	32.1	A	Shu 5550B	Del	Gem	Bud	Fir	6470
Rehberger B	....	162	36x5	36x10	Bud YBU	4½x6	32.4	L	PC	K-P	Bus	Str	G	RBo	Bos‡	B-L	D	B-L 51	U	4	Spi	Tim 6566	W	F	8.5	45.5	A	Tim 1544B	Del	Gem	Van	Fir	6460
Republic 19	....	165°	36x5	36x10	Con K4	4⅛x5¼	27.2	L	FP	Pha	Own	Str	V	Bos	Bos‡	Ful	D	Ful	U	4	Spi	Eat	I	D	8.40	40.3	B	Eat	Mat	Jac	Van	Fir	5200
Republic 19W	....	165°	36x5	36x10	Wau FU	4 x5¾	25.6	L	PC	Wau	Own	Str	V	Bos	Bos‡	Ful	D	Ful	U	4	Spi	Eat	I	D	8.40	40.3	B	Eat	Mat	Jac	Van	Fir	5200
Rowe GSW	4150	143°	34x5	36x10	Wis UAU	4¼x6	28.9	L	PC	Han	Bus	Zen	V	Bos	Opt‡	B-L	D	B-L 51	U	4	Spi	She W-21	W	½	8.75	31.0	A	She D-370	She	Ros	Hoo	Non	5810
Ruggles 4OHRB	....	115	36x5‡	36x10	Her O	4 x5	25.6	L	PC	Non	Per	Zen	G	Bos	Rem‡	B-L	D	B-L 35	U	4	Spi	Wis 88EF	R	F	7.85	42.0	A	Shu 5550	Det	Jac	Nor	Fir	4700
§Schacht	3800	156	36x5	36x5†	Wis UAU	4¼x6	28.9	L	PC	Dup	Own	Zen	G	Bos	Non	B&B	P	Own	A	4	Spi	Own	W	F	9.66	46.0	B	Own	She	Own	StM	.....	6700
§Selden Unit 53	....	154	36x4	36x8	Con L-4	4½x5½	32.4	L	FP	Pha	Lon	Str	G	Eis	N-E‡	B-L	D	B-L 51	A	4	Spi	Tim 6566	W	F	8.50	45.4	A	Tim 1544B	Det	Gem	Std	Opt	6220
Sterling DW15D	....	130°	36x5	36x10	Own CU	4⅜x5¾	30.6	L	PC	Wau	Own	Zen	V	Eis	.....	B-L	D	B-L 50	A	4	Spi	Tim 6560	W	F	7.2	38.5	A	Tim 1544B	Mat	Ros	Hoo	.....	6000
Sterling DW16	....	156	36x5	36x10	Own CU	4⅜x5¾	30.6	L	PC	Wau	Own	Zen	V	Eis	.....	B-L	. .	B-L 50	U	4	Spi	Tim 6566	W	F	7.2	38.5	A	Tim 1544B	Mat	Ros	Hoo	.....	6000
Stoughton F	....	156	36x5	36x5†	Own	4½x5¾	....	L	FP	Sim	Own	Zen	G	Eis	.....	B-L	. .	B-L50	U	4	The	She W21	W	½	8.75	46.8	. .	She D370	Own	Ros	Bim	Gdy	5900
Super Truck 60-D	....	126	36x6*	42x9*	Wis UAU	4¼x6	28.9	L	PC	Pha	Chi	Zen	G	Spl	Non	Ful	D	Ful GU-8	U	4	Spi	She D-310	R	½	8.63	.....	A	Wis 120-E	Mat	Ros	Cla	Gdy	.....
Traffic 6000	2145	135	36x4‡	36x7‡	Con N-4	3¾x5	22.5	L	PS	....	Own	Car	G	Bos	Bos‡	Cov	D	Cov MUN	U	3	.....	Rus 60001	I	D	8.80	32.2	A	Own	Det	Own	Opt	Fir	3900
Traylor D	3400	150	36x4‡	36x8†	Bud ETU	4¼x5½	28.9	L	PC	Pie	G&O	Zen	G	Spl	Wes†	M-E	D	Own D-4-U	U	4	M-E	She W-21	W	½	7.75	37.0	A	She D-343	Mer	Ros	Sch	.....	5850
United 60	....	156	36x5	36x10	Her OX	4 x5	25.6	L	PC	Non	Per	Str	G	Bos	Non	B-L	D	B-L 35	U	4	Blo	Wis 88E	R	½	8.66	46.3	A	Shu 510	Det	Lav	Van	.....	4630
U.S. R	....	156	36x4‡	36x4‡	Hin 400	4 x5¼	25.6	L	PC	Hin	Lon	Str	V	Spl	Bos‡	B-L	D	B-L 51	A	4	Blo	She W-21	W	½	8.70	46.5	A	Shu 510	She	Lav	Sch	.....	5500
Winther 54	3500	152	36x5	36x8	Wis UAU	4¼x6	28.9	L	FP	Pie	Own	Str	V	Bos	Bos	B&B	D	B-L 51	A	4	Pet	Cla	I	. .	9.00	48.0	A	Tim	Mat	Ros	Own	.....	5700
Winther 454	3800	152	36x5	36x5†	Wis UAU	4¼x6	28.9	L	FP	Pie	Own	Str	V	Bos	Bos	B&B	D	B-L 51	U	4	Pet	Cla	I	. .	9.00	48.0	B	Own	Mat	Ros	Own	.....	6400
Witt-Will SS	3225	Opt	36x4‡	36x10	Con K-4	4½x5¼	27.2	L	FP	Pie	Own	Zen	V	Eis	Non	B-L	D	B-L 51	U	4	Spi	Tim 6560	W	F	9.25	40.0	A	Tim 1544	She	Ros	Arc	Fir	5500
3½ Ton																																	
American LaFranceY	4950	Opt	36x5	36x10	Own 3R	4¼x6	28.9	L	P§	Own	Bus	Zen	V	Spl	Bos‡	Own	D	Own 3R	A	4	Own	Own 3R	W	F	8.75	47.6	B	Own 3R	Mer	....	Day	Non	8600
§Armleder KWB	....	156°	36x5	36x5†	Bud YBUI	4½x6	32.4	L	PS	Pha	Own	Zen	G	Bos	Wes‡	B-L	D	B-L	U	4	Spi	Tim	W	F	10.3	55.3	B	Tim	She	Ros	StM	Non	6900
Atterbury 22D	4550	174°	36x5	40x6‡	Con L-4	4½x5½	32.4	L	FP	Pie	Own	Zen	G	Bos	Bos	B-L	D	B-L 55	A	4	Spi	Tim 6666	W	F	10.3	55.2	A	Tim 1632B	S.P	Gem	Arc	Non	7500
Available L3½	....	176	36x5	36x10	Her L-3	4½x5¾	32.4	L	PC	Pie	Chi	Str	G	Bos	Bos‡	B-L	D	B-L 55	A	4	Spi	Tim 6666	R	½	10.3	56.1	A	Con 2203	Tut	Ros	Bim	Non	6500
Bethlehem M	3795	168	36x5	36x5†	Own H	4 x5¼	25.6	L	FP	Pie	Bus	Zen	V	Bos	G&D	Ful	D	Ful GU15	U	4	Spi	Wis 120FG	R	½	10.4	49.9	A	She D-370	Mat	Lav	Smi	.....	6300
Bethlehem CS	4195	145	36x6	36x6†	Own H	4 x5¼	25.6	L	FP	Pie	Bus	Zen	V	Bos	G&D	B-L	D	B-L 55	A	7	Spi	Wis 120FG	R	½	10.4	98.0	A	She D370	Mat	Lav	Smi	Non	6300

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For full name and address of manufacturer and information regarding complete line see page 51

Trade Name and Model	General: Chassis Price	General: Standard Wheelbase (inches)	General: Tire Size §§ Front (inches)	General: Tire Size §§ Rear (inches)	Engine: Make and Model	Engine: Bore and Stroke (inches)	Engine: N.A.C.C. Rated H.P.	Engine: Valve Arrangement	Engine: Oiling System	Engine: Governor (Make)	Engine: Radiator (Make)	Engine: Fuel System: Carburetor (Make)	Engine: Fuel System: Fuel Feed	Electrical System: Ignition System (Make)	Electrical System: Generator and Starter (Make)	Clutch: Make	Clutch: Type	Gearset: Make and Model	Gearset: Location	Gearset: No. of Forward Speeds	Universals (Make)	Rear Axle: Make and Model	Rear Axle: Final Drive	Rear Axle: Type	Gear Ratios: Total Reduction in High	Gear Ratios: Total Reduction in Low	Brakes, Location	Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Rims (Make)	Chassis Weight (lbs.) (stripped)
5 Ton																																	
Acme 90L	....	177	36x5‡	40x12	Con B-7	4¾x6	36.1	L	FP	Dup	G&O	Ray	V	Eis	Del†	B&B	P	Cot S	A	4	Blo	Tim 6660	W	F	8.75	45.5	A	Tim 1630B	Det	Ros	Bim	.....	8160
Amer. LaFrance V	5500	Opt	36x6	40x6	Own 5R	4¾x6	36.1	L	PS	Own	Bus	Zen	V	Spl	Bos‡	Own	D	Own 5R	A	4	Own	Own 5R	W	F	10.0	54.5	B	Own 5R	Mer	.....	Day	Non	9600
Atterbury 24E	5500	174°	36x6	40x7†	Con B-7	5 x6	40.1	L	FP	Pie	Own	Zen	V	Bos	Bos	B-I.	D	B-L 60 Max	A	7	Spi	Tim 6760	R	F	11.6	110.7	A	Tim 1732B	S.P	Gem	Std	Non	9500
Autocar L	....	156	34x6	36x14	Own Y	4¼x5½	28.9	L	SP	Pha	Own	Str	G	Bos	L-N‡	Own	P	Own B	A	4	Spi	Own Y	R	F	9.89	72.1	A	Own Y	Del	Ros	Hoo	Non	7400
Autocar M	...	120	34x6	36x14	Own Y	4¼x5½	28.9	L	SP	Pha	Own	Str	G	Bos	L-N‡	Own	P	Own B	A	4	Spi	Own Y	R	F	9.89	72.1	A	Own Y	Del	Ros	Hoo	Non	7200
Autocar M	....	120	34x6	36x14	Own Y	4¼x5½	28.9	L	SP	Pha	Own	Str	G	Bos	L-N‡	Own	P	Own B	A	4	Spi	Own Y	R	F	9.89	72.1	A	Own Y	Del	Ros	Hoo	Non	9500
Available L5	....	190	36x6	40x12	Wau EU	5 x6¼	40.0	L	FP	Wau	Chi	Str	G	Bos	Bos†	B-L	D	B-L 60	A	4	Spi	Tim 6760	W	F	11.3	60.6	A	Tim 1730	Tut	Ros	Smi	Non	9200
Biederman	....	180°	36x7	36x14	Con 6B-6	3¾x5	33.7	L	PC	Han	Own	Zen	G	Del	Del	B-L	D	B-L 60	U	7	Spi	Tim	W	F	11.5	60.6	A	Shu	Mat	Ros	Day	Non	9200
Brockway T	....	174	36x6	40x14	Con B-7	5 x6	52.5	L	FP	Pha	Bus	Zen	V	Eis	L-N	B-L	D	B-L 60	A	4	Spi	Tim 6760	W	F	10.33	.....	A	Tim 1732	She	Ros	Day	Non	9800
Brockway T15	....	176¾	36x6	40x14	Con B-7	5 x6	52.5	L	FP	Pha	Bus	Zen	V	Eis	L-N	B-L	D	E-L 60	A	7	Spi	Tim 6760	W	F	10.33	.....	A	Tim 1732	She	Ros	Day	Non	9800
Clinton 120L	5140	204	36x6‡	36x7†	Bud BTU	5 x6½	40.0	L	PC	K.P.	Own	Zen	G	Bos	Bos	B-L	D	B-L 60	A	4	M-E	Tim 6760	W	F	8.80	47.1	A	Tim 1732B	Per	Ros	StM	.....	9400
Clinton 120LM	5250	204	36x6	36x7†	Bud BTU	5 x6½	40.0	L	PC	K.P.	Own	Zen	G	Bos	Bos	B-L	D	B-L 60 Max	A	7	M-E	Tim 6760	W	F	8.80	83.6	A	Tim 1732B	Per	Ros	StM	.....	9400
Clydesdale 2	....	176	36x7	40x7†	Con B-7	5 x6	40	O	FP	Own	Own	Zen	V	Bos	Bos*	B-L	D	B-L 60 Max	A	7	Spi	Tim 6760	W	F	11.6	110.8	A	Tim 1732B	Per	Ros	Smi	Non	9750
Corbitt AA	....	178	36x6	40x6†	Con B-7	5 x6	40.0	L	FP	Sim	McC	Str	V	Eis	Bos‡	B-L	D	B-L 60 Max	A	7	Spi	She W-51	W	½	13.0	96.0	A	She 4FA20	She	Ros	Smi	Non	9410
Day-Elder L	....	170°	36x6	36x7†	Bud BTU	5 x6½	40.0	L	PC	Mon	Bus	Zen	V	Eis	Bos‡	B-L	D	B-L 60	A	4	Spi	Tim 6760	W	F	10.2	54.8	A	Tim 1732B	She	Gem	Van	Fir	9200
Denby 210	....	170	36x6	40x6	Con B5	4¾x6	36.1	L	PC	.....	Lon	Zen	G	Eis	.....	Ful	D	Ful	A	4	U-P	Cla	I	D	12.5	62.7	...	Tim	Det	Ros	Smi	....	8590
Diamond T S	....	180	36x6	40x6†	Hin B-2	4¾x6	36.1	L	FP	Hin	G&O	Str	V	Bos	Opt‡	B-L	D	B-L 60	A	4	Spi	Tim 6760	W	F	11.66	62.38	A	Tim 1732B	Mat	Gem	Int	Non	8750
Dixon	4490	160	36x5	36x12	Con L-4	4½x5½	32.4	L	FP	Pie	G&O	Zen	G	Bos	Non	Ful	D	Ful HUI	A	8	Spi	Tim 6666	W	F	Opt	Opt	A	Tim 1632B	S.P	Ros	Smi	Non	8100
Federal X-2	....	163	36x6	40x6†	Con B-5	4¾x6	36.1	L	FP	Pha	Own	Zen	V	Eis	Rem†	B&B	P	W-G	A	4	Spi	Tim 6760	W	F	10.2	60.0	A	Tim 1630B	Mat	Gem	.....	Non	8700
Garford 68D	....	167	36x6‡	40x12	.....	5 x6½	40.0	L	PC	.....	Own	.....	G	.....	.....	Own	D	.....	A	7	.....	.....	W	F	8.80	.....	A	.....	.....	.....	.....	Non	9350
§Gary B50	4850	182	36x6	40x14	Bud BTU	5 x6½	40.0	L	PC	McC	Chi	Str	V	Eis	Non	B-L	D	B-L	A	4	Spi	Tim 6760	W	F	11.6	56.4	A	Tim 1730	Mar	Ros	Day	Non	9250
G.M.C. K-101A	....	163	36x5	40x12	Own K101	4½x6	32.4	L	FP	Own	McC	Mar	G	Eis	Rem	Own	D	Own 101A	A	7	Own	Tim 6760	W	F	10.0	86.0	A	Tim 1632B	Own	Own	Day	Non	8670
G.M.C. K-101B	....	187	36x5	40x12	Own K101	4½x6	32.4	L	FP	Own	McC	Mer	G	Eis	Rem	Own	D	Own 101B	A	7	Own	Tim 6760	W	F	10.0	86.0	A	Tim 1632B	Own	Own	Day	Non	9120
Gotfredson 100	....	169	36x6	40x14	Bud BTU	5 x6½	40.0	L	PC	Sim	McC	Zen	V	RBo	Non	B-L	D	B-L 60	A	7	Spi	Tim 6760	W	F	10.2	54.8	B	Tim 1732B	Det	Gem	Day	Non	12000
Gramm-Berns'n 50	....	168	36x6	40x6†	Con B2	4¾x6	36.1	L	PC	Con	Own	Str	G	Eis	N-E	Own	D	Own 50	A	4	Own	She W-51	W	½	10.5	62.0	B	She 4FA20	Per	Ros	Smi	Non	9700
Guilder K5-6	5250	170	36x6	40x14	Bud BTU	5 x6½	40.0	L	PC	Pie	G&O	Zen	G	Eis	Non	B-L	D	B-L 60	A	4	M-E	Wis	R	½	9.00	.....	B	Shu 650	Mer	Ros	Van	.....	8800
Hahn M	4250	152°	36x5	36x12	Con L4	4½x5½	32.4	L	FP	Pha	Chi	Str	G	Bos	Del	B-L	D	.....	A	4	Spi	Tim 6666	W	...	10.33	.....	A	Tim 1630	Mer	Ros	Opt	Opt	8300
Hahn M2	4750	174°	36x5	40x12	Con B5	4¾x6	36.1	L	FP	Pha	Chi	Str	G	Bos	Del	B-L	D	.....	A	7	Spi	Tim 6666	W	...	8.75	.....	A	Tim 1730	Mer	Ros	Opt	Opt	9160
Indiana 51	....	182	36x6	40x12	Wau EU	5 x6¼	40.0	L	PC	Wau	McC	Str	V	Eis	Rem†	B&B	P	B-L 60	A	4	Spi	She W-52	W	½	10.2	54.8	A	She 4-FA-20	Bea	Woh	Smi	.....	9310
Indiana 52	....	182	36x6	40x12	Wau EU	5 x6¼	40.0	L	PC	Wau	McC	Str	V	Eis	Rem†	B&B	P	B-L60	A	7	Spi	She W52	W	½	10.2	96.9	A	She 4FA20	Bea	Woh	Smi	.....	9310
International 103	....	160	36x5	40x14	Own	4¼x5	28.9	H	SP	Own	Own	Own	G	RBo	Rem‡	Own	D	Own 103	A	4	Own	Own 103	I	D	11.0	69.9	B	Own 103	She	Own	Own	Non	7580
Kearns TF	....	160°	36x6	36x12	Wis VAU	4½x6	32.4	...	SP	.....	Own	Zen	...	.....	.....	Ful	D	Ful	A	4	.....	She	W	½	.....	.....	A	She	.....	Ros	.....	.....	8400
Kenworth RS	5500	178	36x6	40x14	Bud BTU	5 x6½	40.0	L	PC	Pie	Own	Str	V	Bos	Bos	B-L	P	B-L 60	A	7	Spi	She W-51	W	½	8.75	89.0	A	She 4FA-20	Lah	Ros	Smi	.....	9700
King Zeitler	4525	168°	36x7	40x14	Con B5	4¾x6	36.1	L	FP	Pha	Chi	Str	G	Eis	Bos‡	B-L	P	B-L 60	A	4	Pie	Tim 6760	W	F	11.6	62.3	A	Tim 1732 B	Mar	Lav	Bim	Fir	8600
Kissel Goliath	4385	168	36x6	40x14	Bud BTU	5 x6½	40.0	L	PC	Pie	McC	Str	V	Eis	.....	B-L	P	W-G	A	...	Spi	She W32	W	½	11.75	58.6	...	She 3FA20	Mat	Ros	Smi	.....	8500
Kleiber	5300	185	36x6‡	40x14‡	Con B-5	4¾x6	36.1	L	FP	Non	R-T	Str	V	RBo	Non	B-L	D	B-L 60	A	4	Spi	Tim 6760	W	F	10.3	54.8	A	Tim 1730	Bet	Ros	Smi	.....	10400
Krebs 84	....	183°	36x6‡	40x12‡	Con B5	4¾x6	36.1	L	PC	Pie	Own	Zen	V	Bos	Bos	B-L	D	B-L 60	A	7	Spi	Tim 6666	W	F	10.3	97.8	A	Tim 1632	Mat	Ros	Smi	Fir	7950
LeMoon G5	....	Opt	36x6	40x6†	Con B-5	4¾x6	36.1	L	FP	Con	Chi	Str	G	Bos	Bos‡	B-L	D	B-L 60	A	4	Own	Tim 6766	W	F	11.6	.....	A	Tim 1730	Tut	Ros	StM	Non	8000
Luedinghaus	....	160°	36x6‡	40x6‡	Wau EU	5 x6¼	40.0	L	PC	Non	Own	Zen	G	Spl	Opt‡	B-L	D	B-L 60	A	4	Spi	Tim	W	F	11.6	.....	A	.....	.....	Ros	.....	.....	9500
Maccar G1	....	186	36x6	40x6†	Wis RBU	5 x6	40.0	L	PC	Pie	Own	S-Z	V	Eis	Bos‡	B-L	D	B-L 60	A	4	Spi	Tim 6760	W	F	10.2	54.8	A	Tim 1732B	Row	Ros	Day	.....	8975
Mack AC	5500	156°	36x6	40x6†	Own AC	5 x6	40.0	L	PS	Own	Own	Str	G	Spl	N-E‡	Own	P	Own AC	J	4	Spi	Own AC	C	D	*8.31	53.3*	D	Own AC	Mer	Own	.....	Non	....
Master 61	....	158	36x5	40x12	Bud YBU	4½x6	32.4	L	PC	Pie	Chi	Zen	V	Eis	Non	Ful	D	Ful	A	4	Spi	Tim 6760	W	F	Opt	Opt	A	Tim 1630	Det	Ros	Smi	Non	8200
Moreland RX	5000	192	36x6	40x7	Con B-5	4¾x6	36	L	FP	Con	Own	.....	V	Spl	A-L‡	Own	D	Own 23H	A	5	Pet	Tim 6666	W	F	8.75	52.6	A	Tim 1632B	U.S	Ros	Smi	Non	8180
Northway C5	4500	160°	36x6	40x12	Own C	4 x6	25.6	H	PC	.....	G&O	She	V	Bos	Bos	.....	.....	.....	R	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	Ros	.....	.....	7260
Ogden G	....	175	36x6	40x12	Con B-5	4¾x6	36.1	L	FP	Con	Chi	Zen	G	Spl	Ves	B-L	D	B-L 60	A	4	M-E	Tim 6766	I	...	10.3	.....	A	Tim 1540B	Tut	Ros	Sm	Non	8600
Pierce-Arrow RD	5000	162	36x6‡	36x7	Own RD	4½x6¾	32.4	T	FP	Own	Own	Str	G	Bos	Del	Own	D	Own RD	A	4	Spi	Own RD	W	F	7.8	40.4	B	Own RD	S.P	Own	Bet	.....	8750
Rehberger D	....	186	36x6	40x14	Bud BTU	5 x6½	40.0	L	PC	K-P	Bus	Str	G	RBo	Bos‡	B-L	D	B-L 60	A	4	Spi	Tim 6760	W	F	10.25	54.8	A	Tim 1/32B	Del	Gem	Van	Fir	10010
Rowe FW	4850	170°	36x6	40x7	Wis RAU	4¾x6	36.1	L	PC	Sim	Bus	Zen	G	Bos	Opt‡	B-L	D	B-L 60	A	4	Spi	She W51	W	½	10.2	40.7	A	She 5FA30	She	Ros	Smi	.....	9140
Sandow L	....	175	.....	.....	Bud BTU	5 x6½	32.4	L	FP	Mon	Chi	Str	G	Bos	Non	B-L	D	B-L 60	A	4	Spi	Tim 6766	W	½	11.0	46.6	B	Tim 1732B	.....	Ros	.....	.....	7800
Sanford W50	....	174	36x6	40x14	Con B-7	5 x6	36.1	L	FP	Pha	R-T	Str	G	Con	Dyn	Ful	P	Ful H-1	A	4	Spi	She 51	W	½	13.25	67.0	A	She 4FA20	She	Ros	Van	Fir	9400
Schacht	4600	168	36x5	40x7†	Wis VAU	4½x6	32.4	L	PC	Dup	Own	Zen	G	Bos	Non	B&B	D	Own	A	8	Spi	Own	W	F	14.0	66.5	B	Own	She	Own	StM	.....	8200
Selden Unit 90	....	164	36x6	40x12	Con B-7	5 x6	40.1	L	FP	Pha	Lon	Str	G	Eis	Bos	Det	D	B-L 60	A	4	Spi	Tim 6760	W	F	11.6	62.0	A	Tim 1730B	S.P	Gem	Std	.....	9650
Service 103	....	173	36x6	40x12	Bud YBU-I	4½x6	32.4	L	PC	Non	Own	Str	V	Eis	Rem	B&B	P	B-L 60	A	7	Spi	Tim 6760	W	F	10.25	97.3	A	Tim 1732	She	Ros	Int	.....	9150
Sterling EW23	....	168°	36x6	40x12	Own DU	4½x6½	32.4	L	PC	Wau	Own	Zen	V	Eis	.....	H-S	O	B-L 60	A	4	Spi	Tim 6760	W	F	8.8	52.4	A	Tim 1632B	Mat	Ros	Hoo	.....	8675
Sterling EWS25	....	148°	36x6	40x12	Own EU	5 x6½	40.0	L	PC	Wau	Own	Zen	V	Eis	.....	H-S	O	B-L 60	A	4	Spi	Tim 6760	W	F	8.8	52.4	A	Tim 1732B	Mat	Ros	Hoo	.....	9175
Sterling EC23	....	174°	36x6	40x12	Own DU	4½x6½	32.4	L	PC	Wau	Own	Zen	V	Eis	.....	H-S	O	Own	A	6	B.G	Own	C	D	7.8	47.2	A	Tim 1632B	Mat	Ros	Hoo	.....	8100
Sterling ECS24	....	174°	36x6	40x12	Own EU	5 x6½	40.0	L	PC	Wau	Own	Zen	V	Eis	.....	H-S	O	Own	A	6	B.G	Own	C	D	7.8	47.2	A	Tim 1632B	Mat	Ros	Hoo	.....	8400
Super Truck 100	4500	164	40x5	40x6†	Wis RAU	4¾x6	36.1	L	PC	Sim	Chi	Zen	G	Spl	‡Ves†	Ful	D	Ful H	A	4	Spi	She W-51	W	½	10.2	49.2	A	She 4FA20	She	Ros	Smi	Non	8500
Transport 75	....	170	36x5‡	36x12‡	Bud YTU	4½x6	32.4	L	PC	Dup	Mod	Zen	G	Eis	Rem‡	B&B	P	Cot RU	U	4	Blo	Cla 3D	I	D	10.0	52.0	B	Shu 610	Det	Jac	Mot	.....	7600
Traylor F	4700	170	36x6	40x6†	Bud YTU	4½x6	32.4	L	PC	Sim	G&O	Zen	G	Bos	Wes†	B-L	D	B-L 60	A	4	Spi	She W-32	W	½	10.2	55.0	A	She 4FA20	Mer	Ros	Smi	Non	8800
U. S. S. Special	....	168	36x6	40x6†	Hin HA200	4½x5½	32.4	L	PC	Hin	Lon	Str	V	Spl	Bos‡	B-L	D	B-L 55	A	4	Blo	She	W	½	11.7	62.8	A	She 4FA20	She	Lav	Smi	Non	7500
United 100	....	171	36x6	36x12	Her G	4¾x5¾	36.1	L	PC	Pie	Per	Zen	G	Bos	Non	B-L	D	B-L 60	A	4	Blo	Wis 1800	R	...	11.2	74.9	A	Shu 610	Det	Lav	Van	.....	8150
Victor 85	3750	160	36x6	36x12	Con L4	4½x5½	32.4	L	FP	Pie	Per	Zen	V	Eis	.....	Ful	D	Ful GU7	U&A	8	Blo	Wis 1200S	R	½	10.25	236.0	A	Shu 610	Det	Lav	Smi	.....	8000
Ward LaFrance 5B	....	164	36x6	40x12	Wau	5 x6½	40.0	L	PC	Wau	Own	Str	G	Bos	A-L	B-L	D	B-L 60 Max	A	7	Spi	Tim 6666	W	F	7.8	74.0	A	Tim 1632	Row	Ros	Van	.....	7900
White 45	4500	174	36x6‡	40x6†	Own GR	4¼x5¾	28.9	L	PC	Own	Own	Zen	V	.....	.....	Own	D	Own 45	U	4	Own	Own 45	R	F	11.7	57.46	B	Own 45	.....	Own	...	Non	9030
Wilcox F	4350	162	36x5	40x12	Bud ATU	4¾x6½	36.1	L	PC	Dup	Own	Str	V	Bos	Opt‡	Own	D	Own EA	A	4	Spi	WAL 5A	R	½	10.2	56.5	B	She 5FA30	She	Own	Smi	Non	9000
Winther 104	5000	162	36x5	40x12	Wis RAU	4¾x6	36.1	L	FP	Pie	Own	Str	V	Bos	Bos	B&B	D	B-L60	A	4	Pet	Cla	I	...	11.0	59.0	A	Tim	Mat	Ros	Own	...	8600
Witt-Will A	4500	172	36x6	40x6†	Con B5	4¾x6	36.1	L	FP	Non	Own	Zen	G	Eis	Wes	B-L	D	B-L 60 Max	A	4	Spi	Tim 6760	W	F	10.2	63.3	A	Tim 1730B	She	Ros	Day	Non	9500

5½, 6 and 7 Ton

Acme 120L	....	177	36x5‡	40x12	Con B-7	4¾x6	36.1	L	FP	Dup	G&O	Ray	V	Eis	Del†	B&B	P	Cot S	A	4	Blo	Tim 6660	W	F	8.75	45.5	A	Tim 1630B	Det	Ros	Bim	.....	8160
Atterbury 24E	5500	174°	36x6	40x7†	Con B-7	5 x6	40.1	L	FP	Pie	Own	Zen	V	Bos	Bos	B-I.	D	B-L 60 Max	A	7	Spi	Tim 6760	R	F	11.6	110.7	A	Tim 1732B	S.P	Gem	Std	Non	9500
Autocar L	....	156	34x6	36x14	Own Y	4¼x5½	28.9	L	SP	Pha	Own	Str	G	Bos	L-N‡	Own	P	Own B	A	4	Spi	Own Y	R	F	9.89	72.1	A	Own Y	Del	Ros	Hoo	Non	7200
Autocar M	...	120	34x6	36x14	Own Y	4¼x5½	28.9	L	SP	Pha	Own	Str	G	Bos	L-N‡	Own	P	Own B	A	4	Spi	Own Y	R	F	9.89	72.1	A	Own Y	Del	Ros	Hoo	Non	7200
Autocar M	....	120	34x6	36x14	Own Y	4¼x5½	28.9	L	SP	Pha	Own	Str	G	Bos	L-N‡	Own	P	Own B	A	4	Spi	Own Y	R	F	9.89	72.1	A	Own Y	Del	Ros	Hoo	Non	9500
Available L5	....	190	36x6	40x12	Wau EU	5 x6¼	40.0	L	FP	Wau	Chi	Str	G	Bos	Bos†	B-L	D	B-L 60	A	4	Spi	Tim 6760	W	F	11.3	60.6	A	Tim 1730	Tut	Ros	Smi	Non	9200
Biederman	....	180°	36x7	36x14	Con 6B-6	3¾x5	33.7	L	PC	Han	Own	Zen	G	Del	Del	B-L	D	B-L 60	U	7	Spi	Tim	W	F	11.5	60.6	A	Shu	Mat	Ros	Day	Non	9200
Brockway T	....	174	36x6	40x14	Con B-7	5 x6	52.5	L	FP	Pha	Bus	Zen	V	Eis	L-N	B-L	D	B-L 60	A	4	Spi	Tim 6760	W	F	10.33	.....	A	Tim 1732	She	Ros	Day	Non	9800
Brockway T15	....	176¾	36x6	40x14	Con B-7	5 x6	52.5	L	FP	Pha	Bus	Zen	V	Eis	L-N	B-L	D	E-L 60	A	7	Spi	Tim 6760	W	F	10.33	.....	A	Tim 1732	She	Ros	Day	Non	9800
Clinton 120L	5140	204	36x6‡	36x7†	Bud BTU	5 x6½	40.0	L	PC	K.P.	Own	Zen	G	Bos	Bos	B-L	D	B-L 60	A	4	M-E	Tim 6760	W	F	8.80	47.1	A	Tim 1732B	Per	Ros	StM	.....	9400
Clinton 120LM	5250	204	36x6	36x7†	Bud BTU	5 x6½	40.0	L	PC	K.P.	Own	Zen	G	Bos	Bos	B-L	D	B-L 60 Max	A	7	M-E	Tim 6760	W	F	8.80	83.6	A	Tim 1732B	Per	Ros	StM	.....	9400
Clydesdale 2	....	176	36x7	40x7†	Con B-7	5 x6	40	O	FP	Own	Own	Zen	V	Bos	Bos*	B-L	D	B-L 60 Max	A	7	Spi	Tim 6760	W	F	11.6	110.8	A	Tim 1732B	Per	Ros	Smi	Non	9750
Corbitt AA	....	178	36x6	40x6†	Con B-7	5 x6	40.0	L	FP	Sim	McC	Str	V	Eis	Bos‡	B-L	D	B-L 60 Max	A	7	Spi	She W-51	W	½	13.0	96.0	A	She 4FA20	She	Ros	Smi	Non	9410
Day-Elder L	....	170°	36x6	36x7†	Bud BTU	5 x6½	40.0	L	PC	Mon	Bus	Zen	V	Eis	Bos‡	B-L	D	B-L 60	A	4	Spi	Tim 6760	W	F	10.2	54.8	A	Tim 1732B	She	Gem	Van	Fir	9200
Denby 210	....	170	36x6	40x6	Con B5	4¾x6	36.1	L	PC	.....	Lon	Zen	G	Eis	.....	Ful	D	Ful	A	4	U-P	Cla	I	D	12.5	62.7	...	Tim	Det	Ros	Smi	....	8590
Diamond T S	....	180	36x6	40x6†	Hin B-2	4¾x6	36.1	L	FP	Hin	G&O	Str	V	Bos	Opt‡	B-L	D	B-L 60	A	4	Spi	Tim 6760	W	F	11.66	62.38	A	Tim 1732B	Mat	Gem	Int	Non	8750
Dixon	4490	160	36x5	36x12	Con L-4	4½x5½	32.4	L	FP	Pie	G&O	Zen	G	Bos	Non	Ful	D	Ful HUI	A	8	Spi	Tim 6666	W	F	Opt	Opt	A	Tim 1632B	S.P	Ros	Smi	Non	8100
Federal X-2	....	163	36x6	40x6†	Con B-5	4¾x6	36.1	L	FP	Pha	Own	Zen	V	Eis	Rem†	B&B	P	W-G	A	4	Spi	Tim 6760	W	F	10.2	60.0	A	Tim 1630B	Mat	Gem	.....	Non	8700
Garford 68D	....	167	36x6‡	40x12	.....	5 x6½	40.0	L	PC	.....	Own	.....	G	.....	.....	Own	D	.....	A	7	.....	.....	W	F	8.80	.....	A	.....	.....	.....	.....	Non	9350
§Gary B50	4850	182	36x6	40x14	Bud BTU	5 x6½	40.0	L	PC	McC	Chi	Str	V	Eis	Non	B-L	D	B-L	A	4	Spi	Tim 6760	W	F	11.6	56.4	A	Tim 1730	Mar	Ros	Day	Non	9250
G.M.C. K-101A	....	163	36x5	40x12	Own K101	4½x6	32.4	L	FP	Own	McC	Mar	G	Eis	Rem	Own	D	Own 101A	A	7	Own	Tim 6760	W	F	10.0	86.0	A	Tim 1632B	Own	Own	Day	Non	8670
G.M.C. K-101B	....	187	36x5	40x12	Own K101	4½x6	32.4	L	FP	Own	McC	Mer	G	Eis	Rem	Own	D	Own 101B	A	7	Own	Tim 6760	W	F	10.0	86.0	A	Tim 1632B	Own	Own	Day	Non	9120
Gotfredson 100	....	169	36x6	40x14	Bud BTU	5 x6½	40.0	L	PC	Sim	McC	Zen	V	RBo	Non	B-L	D	B-L 60	A	7	Spi	Tim 6760	W	F	10.2	54.8	B	Tim 1732B	Det	Gem	Day	Non	12000
Gramm-Berns'n 50	....	168	36x6	40x6†	Con B2	4¾x6	36.1	L	PC	Con	Own	Str	G	Eis	N-E	Own	D	Own 50	A	4	Own	She W-51	W	½	10.5	62.0	B	She 4FA20	Per	Ros	Smi	Non	9700
Guilder K5-6	5250	170	36x6	40x14	Bud BTU	5 x6½	40.0	L	PC	Pie	G&O	Zen	G	Eis	Non	B-L	D	B-L 60	A	4	M-E	Wis	R	½	9.00	.....	B	Shu 650	Mer	Ros	Van	.....	8800
Hahn M	4250	152°	36x5	36x12	Con L4	4½x5½	32.4	L	FP	Pha	Chi	Str	G	Bos	Del	B-L	D	.....	A	4	Spi	Tim 6666	W	...	10.33	.....	A	Tim 1630	Mer	Ros	Opt	Opt	8300
Hahn M2	4750	174°	36x5	40x12	Con B5	4¾x6	36.1	L	FP	Pha	Chi	Str	G	Bos	Del	B-L	D	.....	A	7	Spi	Tim 6666	W	...	8.75	.....	A	Tim 1730	Mer	Ros	Opt	Opt	9160
Indiana 51	....	182	36x6	40x12	Wau EU	5 x6¼	40.0	L	PC	Wau	McC	Str	V	Eis	Rem†	B&B	P	B-L 60	A	4	Spi	She W-52	W	½	10.2	54.8	A	She 4-FA-20	Bea	Woh	Smi	.....	9310
Indiana 52	....	182	36x6	40x12	Wau EU	5 x6¼	40.0	L	PC	Wau	McC	Str	V	Eis	Rem†	B&B	P	B-L60	A	7	Spi	She W52	W	½	10.2	96.9	A	She 4FA20	Bea	Woh	Smi	.....	9310
International 103	....	160	36x5	40x14	Own	4¼x5	28.9	H	SP	Own	Own	Own	G	RBo	Rem‡	Own	D	Own 103	A	4	Own	Own 103	I	D	11.0	69.9	B	Own 103	She	Own	Own	Non	7580
Kearns TF	....	160°	36x6	36x12	Wis VAU	4½x6	32.4	...	SP	.....	Own	Zen	...	.....	.....	Ful	D	Ful	A	4	.....	She	W	½	.....	.....	A	She	.....	Ros	.....	.....	8400
Kenworth RS	5500	178	36x6	40x14	Bud BTU	5 x6½	40.0	L	PC	Pie	Own	Str	V	Bos	Bos	B-L	P	B-L 60	A	7	Spi	She W-51	W	½	8.75	89.0	A	She 4FA-20	Lah	Ros	Smi	.....	9700
King Zeitler	4525	168°	36x7	40x14	Con B5	4¾x6	36.1	L	FP	Pha	Chi	Str	G	Eis	Bos‡	B-L	P	B-L 60	A	4	Pie	Tim 6760	W	F	11.6	62.3	A	Tim 1732 B	Mar	Lav	Bim	Fir	8600
Kissel Goliath	4385	168	36x6	40x14	Bud BTU	5 x6½	40.0	L	PC	Pie	McC	Str	V	Eis	.....	B-L	P	W-G	A	...	Spi	She W32

5½, 6 and 7 Ton

Acme 125	....	180	36x6	40x14	Con B-7	4¾x6	36.1	L	FP	Dup	G&O	Ray	V	Eis	Del†	B&B	P	Cot T	A	4	Blo	Tim 6760	W	F	11.6	60.6	A	Tim 1730B	Det	Ros	Smi	Non	8976
Amer La Fr. V 6ton	5750	Opt	36x6	40x6	Own 5R	4¾x6	36.1	L	PS	Own	Bus	Zen	V	Spl	Bos‡	Own	D	Own 5R	A	4	Own	Own 5R	W	F	10.0	54 4	B	Own 5R	Mer	.....	Day	.....	9600
Amer. La Fr. U7ton	6000	Opt	36x7	40x7	Own 5R	4¾x6	36.1	L	PS	Own	Bus	Zen	V	Spl	Bos‡	Own	D	Own 5R	A	4	Own	Own 5R	W	F	11.67	63.5	B	Own 5R	Mer	.....	Day	.....	9800
Clinton 120SM	5250	1/2	36x6‡	40x7‡	Bud BTU	5 x6½	40.0	L	PC	K.P.	Own	Zen	V	Bos	Bos	B-L	D	B-L 60 Max	A	7	M-E	Tim 6760	W	F	8.8	83.6	A	Tim 1732-B	Per	Ros	StM	.....	9400
Fageol 645	5800	172	36x6	40x14	Wau DU	4½x6½	32.4	L	PC	Wau	Own	Zen	V	Spl	Spl	B-L	D	Own B	A	7	Spi	Tim 6760	W	F	••	.....	A	Tim 1732-B	Mat	Ros	.....	.....	9100
Federal X3	....	....	36x6	40x14	Con B-5	4¾x6	36.1	L	F P	Pha	Own	Zen	V	Eis	Rem	B&B	P	W-G	J	4	Spi	Tim 6760	W	F	11.6	60.6	A	Tim 1630B	Mat	Gem	.....	Non	9100
Federal X3	....	....	36x6	40x14	.....	.....	.....	L	PC	.....	Own	.....	G	.....	.....	Own	D	Own 151	J	4	.....	Own 151	C	D	11.4	.....	B	.....	.....	.....	.....	Non	10100
Garford 151	....	162	36x6	40x12	.....	5 x6½	40.0	L	PC	.....	Own	.....	G	.....	.....	Own	D	Own 151	A	4	M-E	Wis	R	½	9.10	.....	A	Shu 650	Mer	Ros	Van	Van	9600
Guilder K	5250	170	36x6	40x14	Bud BTU	5 x6½	.....	L	PC	Pie	G&O	Zen	G	Eis	Non	B-L	D	B-L 60	A	4	Pet	Cla 5H	W	F	11.6	61.8	D	Own K-61	Per	Gem	Cla	Non	9025
Guilder K	5250	170	36x6	40x14	Own K61	4½x6½	32.4	T	PC	Pie	Lon	Zen	G	Eis	Opt	B&B	P	B-L 60	A	7	Spi	Tim 6760	W	F	11.6	110.2	A	Tim 1632	Mat	Ros	Smi	Fir	9500
Kelly-Springfield K61	5000	156	36x6	36x7†	Own B7	5 x6	40.	L	PC	Pie	Own	Zen	V	Bos	Bos	B-L	D	B-L 60	J	4	Spi	Own AC	C	D	*9.69	62.2*	D	Own AC	Mer	Own	.....	.....	.....
Krebs 94	....	183°	36x7‡	40x7	Con B7	5 x6	40.	L	PS	Own	Own	Str	G	Spl	N-E‡	Own	P	Own AC	J	4	Spi	Own AC	C	D	10.5*	67.3*	D	Own AC	Mer	Own	.....	.....	.....
Mack AC6½	5750	156°	36x6	40x12	Own AC	5 x6	40.0	L	PS	Own	Own	Str	G	Spl	N-E‡	Own	P	Own AC	J	4	Spi	Own AC	C	D	10.5*	67.3*	D	Own AC	Mer	Own	.....	.....	.....
Mack AC7½	6000	156°	36x7	40x7†	Own AC	5 x6	40.0	L	PS	Own	Own	Str	G	Spl	N-E‡	Own	P	Own AC	J	4	Spi	Own AC	C	D	10.5*	67.3*	D	Own AC	Mer	Own	.....	.....	.....
Master 64	....	170	36x6	40x14	Bud YBU	4¾x6½	36.1	L	PC	Pie	Chi	Zen	P	Del	Del	Own	D	Own RF	A	4	Spi	Tim 6760	W	F	Opt	Opt	A	Tim 1730B	Det	Ros	Smi	Non	9800
Pierce-Arrow RF	5200	168	36x6‡	40x8	Own RF	4½x6¾	32.4	T	FP	Own	Own	Str	V	Eis	Del	‡B-L	D	B-L 67	A	7	Spi	Tim 6760	W	F	10.0	51.9	B	Own RF	S.P	Own	Bet	.....	9540
Rainier R27	5300	170	36x6	40x6†	Con B-7	5 x6	40 0	L	FP	Pie	Bus	Zen	G	Eis	Non	Ful	D	Own RF	A	4	Spi	Own RF	W	F	10.0	51.9	B	Own RF	She	Ros	Smi	Non	9000
Saurer 5AD	6500	Opt	40x6‡	40x7‡	Own 5AD	4 ¾x7 ½	29.3	L	PS	Own	Own	Own	G	Sci	Opt	Own	K	Own 5AD	U	4	Own	Own 5 AD	B	F	7.87	50.0	B	Own 5AD	Own	Own	Own	.....	7500
Schacht–7 ton	5050	156°	36x6	40x14	Wis RBU	5 x6	40.0	...	FP	Dup	Own	Zen	G	Bos	Non	Ful	D	Own	A	8	Spi	Own	W	F	14.0	66.5	B	Own	She	Own	StM	.....	9000
Schacht–7 ton	....	165°	36x6	40x14	Con B-5	4¾x6	36.1	L	FP	Sim	Lon	Str	V	Eis	Bos‡	B-L	D	B-L 60	A	7	Spi	Tim 6760	W	F	6.86	83.6	A	Tim 1730	Amc	Gem	Day	Non	8700
Standard 5-7	....	168°	36x6	40x14	Own EU	5¾x6¼	46.0	L	...	Wau	Own	Zen	V	Eis	.....	H-S	O	B-L 60	A	4	Spi	Tim 6760	W	F	8.8	52.4	A	Tim 1732B	Mat	Ros	Hoo	.....	9475
Sterling EW27-6	....	174°	36x6	40x12	Own EU	5 x6¼	40.0	L	...	Wau	Own	Zen	V	Eis	.....	H-S	O	Own	A	6	B.G	Own	C	D	7.3	43.6	A	Tim 1732B	Mat	Ros	Hoo	.....	8800
Sterling EC26-6	....	174°	36x6	40x14	Own EU	5 x6¼	40.0	L	...	Wau	Own	Zen	V	Eis	.....	H-S	O	Own	A	6	B.G	Cwn	C	D	7.3	43.6	A	Tim 1732B	Mat	Ros	Smi	.....	9675
Sterling EC29-7½	....	174°	36x6	40x14	Own EU	5 x6¼	40.0	L	...	Wau	Own	Zen	V	Eis	.....	H-S	O	Own	A	6	B.G	Own	C	D	7.3	43.6	A	Tim 1732B	Mat	Ros	Smi	.....	10100
Sterling EC35-10	....	174°	36x7	40x14	Own EU	5 x6¼	40.0	L	...	Wau	Own	Zen	V	Eis	.....	H-S	O	Own	A	6	B.G	Own	C	D	8.7	53.8	A	Tim 1732B	Mat	Ros	Smi	.....	10100
Sterling EC34,34D-10	....	148°	36x7	40x14	Own GU	5¾x6¼	46.0	L	...	Wau	Own	Zen	V	Eis	.....	H-S	O	Own	A	6	B.G	Own	C	D	10.2	54.8	B	She 4FA20	She	Lav	Smi	Non	9700
U.S. T	....	172	36x6	40x6†	Bud ATU	4¾x6½	36.1	L	PC	Sim	Lon	Str	V	Eis	Bos	B-L	D	B-L 60	A	4	Blo	She W-51	W	½	10.2	54.8	B	She 4FA20	She	Lav	Smi	Non	9700
Victor 90	4250	165	36x7	40x14	Con B5	4¾x6	36.1	L	F P	Pie	Per	Zen	V	Eis	.....	Ful	D	Ful GU7	U&A	8	Blo	Wis 1200S	R	F	11.0	308.5	A	Shu 610	Det	Lav	Smi	.....	8500
Ward LaFrance 7B	....	164	36x6	40x14	Wau EU	5 x6¼	40.0	L	PC	Wau	Own	Str	G	Bos	A-L	B-L	D	B-L 60 Max	A	7	Spi	Tim 1632B	W	F	8.80	83.6	A	Tim 1732	Row	Ros	Van	.....	9500
Winther 144	6000	162	36x6	40x14	Wis RBU	5 x6	40.0	L	FP	Pie	Own	Str	V	Bos	Bos	B&B	D	B-L60	A	4	Pet	Cla	I	...	11.0	59.0	A	Tim	Mat	Ros	Own	.....	9500

Gasoline Tractor-Trucks

Acme 60 L	....	119 ¾	36x4	36x10	Con L4	4½x5½	32.4	L	FP	Dup	G&O	Zen	V	Eis	Del	B&B	P	Cot RU	U	4	Blo	Tim 6560	W	F	8.50	42.0	A	Tim 1540B	Det	Ros	Int	Non	5050
Acme 90–L	....	129	36x5	40x12	Con B7	4¾x6	36.1	L	FP	Dup	G&O	Ray	V	Eis	Del	B&B	P	Cot SU	U	4	Blo	Tim 6660	W	F	8.75	45.5	A	Tim 1630-B	Det	Ros	Bim	Non	8160
Acme 90–L	....	129	36x6	40x14	Con B7	4¾x6	36.1	L	FP	Dup	G&O	Ray	V	Eis	Del	B&B	P	Cot SU	U	4	Blo	Tim 6760	W	F	11.6	60.6	A	Tim 1730-B	Det	Ros	Smi	Non	8976
Acme 125	....	....	36x6	40x14	Con B7	4¾x6	36.1	L	FP	Dup	G&O	Ray	V	Eis	Del	B&B	P	Cot SU	A	4	Own	Own 2R	R	F	7.57	40.8	B	Own 2R	Mer	.....	Day	Non	6400
Amer. La Fr. 5 Ton	3950	143 ½	36x4	36x7	Own 2R	4¼x6	28.9	L	PS	Own	Bus	Zen	V	Spl	Bos‡	Own	D	Own 2R	A	4	Own	Own 3R	W	F	8.75	47.6	B	Own 3R	Mer	.....	Day	Non	8400
Amer. La Fr. 7 Ton	4950	146 ½	36x5	36x10	Own 3R	4¼x6	28.9	L	PS	Own	Bus	Zen	V	Spl	Bos‡	Own	D	Own 3R	A	4	Own	Own 5R	W	F	10.0	54.4	B	Own 5R	Mer	.....	Day	Non	9400
Amer. La Fr. 10 Ton	5500	146½	36x6	40x6	Own 5R	4¾x6	36.1	L	PS	Own	Bus	Zen	V	Spl	Bos‡	Own	D	Own 5R	A	4	Own	Own 5R	W	F	10.0	54.4	B	Own 5R	Mer	.....	Day	Non	9500
Amer. La Fr. 13 Ton	5750	146½	36x6	40x6	Own 5R	4¾x6	36.1	L	PS	Own	Bus	Zen	V	Spl	Bos‡	Own	D	Own 5R	A	4	Own	Own 5R	W	F	11.67	63.5	B	Own 5R	Mer	.....	Day	.....	9700
Amer. La Fr 15 Ton	6000	146½	36x7	40x7	Own 5R	4¾x6	36.1	L	PS	Own	Bus	Zen	V	Spl	Bos‡	Own	D	Own 5R	A	4	Own	Own 5R	W	F	11.67	63.5	B	Own 5R	Mer	.....	Day	.....	9700
Armleder 30	....	115	34x4‡	34x6‡	Her OX	4 x5	25.6	L	PC	Non	Own	Zen	V	Bos	Bos	B-L	D	B-L	U	4	Spi	Tim	W	½	7.25	39.0	A	Tim	She	Ros	StM	Gdy	4400
Armleder 50	....	116	36x4	36x8	Bud EBUI	4¼x5½	28.9	L	PC	Han	Own	Zen	V	Bos	Bos‡	B-L	D	B-L	U	4	Spi	Tim	W	F	9.25	49.5	A	Tim	She	Ros	StM	Gdy	5300
Armleder KWB	....	113	36x5	36x5†	Bud YBUI	4½x6	32.4	L	P S	Pha	Own	Zen	G	Bos	Wes ‡	B-L	D	B-L	U	3	Spi	Tim	W	F	10.3	55.3	A	Tim	She	Ros	StM	Non	6900
Diamond T O4T	....	119½	36x4	36x4	.....	.....	.....	L	PC	.....	G&O	Str	G	Bos	Non ‡	Cov	D	Cov JUC	U	3	Spi	Tim	W	½	6.20	26.0	A	Own 512	.....	.....	.....	Non	....
Diamond T TT	....	119½	36x3½	36x5	Hin 700	3¾x5¼	22.5	L	PC	Hin	G&O	Str	V	Bos	Non	Cov	D	Cov	U	3	Spi	Tim	W	½	8.20	29.9	A	Tim 1452	Mat	Gem	.....	Non	....
Diamond T U2T	....	119½	36x4‡	36x8†	Hin 1400	4 x5¼	25.6	L	PC	Hin	G&O	Str	V	Bos	Non	Cov	D	Cov RU4C	U	4	Spi	Tim 6560	W	F	7.90	36.8	A	Tim 1544B	Mat	Gem	.....	Non	....
Diamond T U3	....	129¼	36x4	36x8†	Hin HAA1500	4¼x5½	28.9	L	PC	Hin	G&O	Str	V	Bos	.....	Cov	D	Cov RAD4	A	4	Spi	Tim 6566	W	F	.....	.....	.....	Tim 1544B	Mat	Ros	.....	.....	5940
Diamond T KT	....	118 ½	36x5	36x5†	Hin 1500	4½x5½	28.9	L	PC	Hin	G&O	Str	V	Bos	Non	Cov	D	Cov SA4	A	4	Spi	Tim 6666	W	F	8.80	44.3	A	Tim 1632B	Mat	Gem	.....	Non	....
Diamond T 8T	....	140	36x6	40x5†	Hin CLB	4¾x6	36.1	L	PC	Hin	G&O	Str	V	Bos	Non	Cov	D	B-L 60	A	4	Spi	Tim 6760	W	F	11.6	56.4	A	Tim 1732B	Mat	Gem	.....	Non	....
Federal	....	125	36x4	36x4†	Con K-4	4½x5¼	27.2	L	FP	Pha	Own	Zen	V	Eis	Rem	B&B	P	D-G	A	4	Spi	Tim 6560	W	F	8.50	50.1	A	Own	.....	Gem	.....	Non	5000
Federal	....	121	36x5	36x5†	Con L-4	4½x5½	32.4	L	FP	Pha	Own	Zen	V	Eis	Rem	B&B	P	W-G	A	4	Spi	Tim 6666	W	F	10.3	59.8	A	Tim 1630B	.....	Gem	.....	Non	6700
F. W. D	....	105	36x7	36x7	Wis A	4¾x5½	36.1	T	PC	Pie	MeC	Str	G	Eis	N-E ‡	H-S	D	Cot DAE	A	3	Blo	Own B	B	F	8.90	35.6	B	Own B	Tut	Ros	Std	Non	6150
Garford 50	....	130	36x5	33x8	.....	.....	.....	L	PC	.....	Own	.....	G	.....	.....	Own	D	Own	A	8	.....	.....	W	F	8.5	41.2	A	.....	.....	.....	.....	.....	5900
Garford 80	....	138	36x5	36x10	.....	4¼x6	32.4	L	PC	.....	Own	.....	G	.....	.....	Own	D	Own 80	A	4	.....	.....	W	F	8.75	42.3	A	.....	.....	.....	.....	.....	7800
Garford 68D	....	141	36x6	40x12	.....	5x6½	40.0	L	PC	.....	Own	.....	G	.....	.....	Own	D	B-L 60	A	7	.....	.....	W	F	10.25	.....	A	.....	.....	.....	.....	.....	9300
G.M.C. K-41T	....	127	36x4	36x8	Own K-41	4 x5½	25.6	L	FP	Own	Own	Mar	G	Eis	Rem	Own	D	Own K41	U	7	Own	Tim 6560	W	F	8.50	57.5	A	Tim 1542B	Own	Own	Det	Non	5520
G.M.C. K-71T	....	138	36x5	36x12	Own K71	4½x6	32.4	L	FP	Own	Own	Mar	G	Eis	Rem	Own	D	Own K71	A	7	Own	Tim 6666	W	F	10.3	88.8	A	Tim 1632B	Own	Own	Day	Non	8120
G.M.C. K-101T	....	138	36x5	36x14	Own K101	4½x6	32.4	L	FP	Own	Own	Mar	G	Eis	Rem	Own	D	Own K101	A	7	Own	Tim 6760	W	F	11.6	100.4	A	Tim 1632B	Own	Own	Day	Non	8880
Harvey WTT	....	125	36x5‡	36x10‡	Bud EBUI	4¼x5½	28.9	L	PC	.....	Own	Str	G	Eis	Non	B-L	D	B-L 55	A	4	Spi	She W-32	W	½	9.25	87.9	A	Tim 1544B	Bea	Ros	Smi	Non	6800
Harvey WHT	....	125	36x6	36x12	Bud YBUI	4½x6	32.4	L	PC	.....	Own	Str	G	Eis	Non	Ful	D	B-L 60	A	4	Spi	Own K70	W	½	10.2	54.8	A	She 4FA20	Bea	Ros	Smi	Non	8900
Kelly-Springfield K-70	2900	120	36x4	36x7	Con K-4	4¼x5¼	27.2	L	FP	Pie	Own	Zen	G	Eis	Del	B&B	P	B-L 51	A	4	Spi	Own K70	W	½	9.25	49.5	A	Own K70	Mat	Ros	StM	Non	5887
Kelly-Springfield K-75	3600	124	36x5	36x10	Con L5	4¼x5½	28.9	L	FP	Pie	Own	Zen	G	Eis	Del	B&B	P	B-L 55	A	4	Pet	Cla 2H	I	D	9.00	48.1	D	Own K75	Mat	Ros	Cla	Non	6300
Kelly-Springfield K-76	3600	124	36x5	36x10	Con L5	4¼x5½	28.9	L	FP	Pie	Own	Zen	G	Eis	Del	B&B	P	B-L 55	A	4	Pet	Own K76	W	½	11.6	62.0	A	Own K76	Mat	Ros	StM	Non	6400
Kelly-Springfield K-41	4400	126	36x5	36x12	Own K-41	4½x6½	32.4	T	PC	Pie	Lon	Zen	G	Eis	Del	B&B	P	B-L 60	A	4	Pet	Cla 3H	I	D	11.6	62.0	D	Own K41	Per	Gem	Cla	Non	7740
Kelly-Springfield K-42	3900	126	36x5	40x5	Own K-42	4½x6½	32.4	T	PC	Pie	Lon	Zen	G	Eis	Del	B&B	P	B-L 60	A	4	Pet	Std 607-5	W	½	10.2	54.8	A	Own K-42	Per	Gem	Smi	Non	8100
Kelly-Springfield K-61	5000	126	36x6	36x7†	Own K-61	4½x6½	32.4	T	PC	Pie	Lon	Zen	G	Eis	Del	B&B	P	B-L 60	A	4	Pet	Cla 5H	I	D	11.6	62.0	D	Own K-61	Per	Gem	Cla	Non	9025
Mack AB 5-Ton	3400	122½	36x4	36x4†	Own AB	4¼x5	28.9	L	PS	Own	Own	Str	G	Spl	N-E ‡	Own	D	Own AB	U	4	Spi	Own AB	C	D	10.5	51.1	B	Own AB	Mer	Own	.....	Non	....
Mack AC 7-Ton	4950	128	36x5	40x5†	Own AC	5 x6	40.0	L	PS	Own	Own	Str	G	Spl	N-E ‡	Own	P	Own AC	J	4	Spi	Own AC	C	D	9.06	58.0	D	Own AC	Mer	Own	.....	Non	....
Mack AC 10-Ton	5500	128	36x6	40x6†	Own AC	5 x6	40.0	L	PS	Own	Own	Str	G	Spl	N-E ‡	Own	P	Own AC	J	4	Spi	Own AC	C	D	9.69	62.2	D	Own AC	Mer	Own	.....	Non	....
Mack AC 13-Ton	5750	128	36x6	40x12	Own AC	5 x6	40.0	L	PS	Own	Own	Str	G	Spl	N-E ‡	Own	P	Own AC	J	4	Spi	Own AC	C	D	10.5	67.4	D	Own AC	Mer	Own	.....	Non	....
Mack AC 15-Ton	6000	128	36x7	40x7†	Own AC	5 x6	40.0	L	PS	Own	Own	Str	G	Spl	N-E ‡	Own	P	Own AC	J	4	Spi	Own AC	C	D	11.5*	73.5*	D	Own AC	Mer	Own	.....	Non	....
Pierce-Arrow XB	3500	118	36x5	36x5	OwnXB	4 x5½	25.6	T	FP	Own	Own	Str	P	Del	Del	Own	D	Own XB	A	4	Spi	Own XB	W	½	9.25	50.2	A	Own	S.P	Own	Own	Non	6280
Pierce-Arrow RD	4700	118	36x6	36x6	Own RD	4½x6¾	32.4	T	FP	Own	Own	Str	P	Del	Del	Own	D	Own RD	A	4	Spi	Own RD	W	F	7.8	41.5	B	Own	S.P	Own	Own	Non	8490
Pierce-Arrow RF	5200	118	36x6	36x6	Own RF	4½x6¾	32.4	T	FP	Own	Own	Str	P	Del	Del	Own	D	Own RF	A	4	Spi	Own RF	W	F	10.0	51.9	B	Own	S.P	Own	Own	Non	9540
Saurer	6500	Opt	40x6‡	40x7	Own	4¾ x7 ½	29.3	L	PS	Own	Own	Own	G	Sci	Opt	Own	K	Own	U	4	Own	Own	B	F	7.87	50 0	B	Own	Own	Own	Own	.....	7500
Schacht 5 Ton	3400	129½	36x4	36x8	Wis UAU	4¼x6	28.9	L	PC	Dup	Own	Zen	G	Bos	Non	B&B	P	Own 5	A	5	Spi	Own G	W	F	8.66	41.2	B	Own G	She	Own	StM	Non	6200
Schacht 7 Ton	3800	129½	36x5	36x10	Wis UAU	4¼x6	28.9	L	PC	Dup	Own	Zen	G	Bos	Non	B&B	P	Own 7	A	8	Spi	Own G	W	F	9.66	45.8	B	Own G	She	Own	StM	Non	6700
Schacht 10 Ton	4400	131½	36x6	40x12	Wis VAU	4½x6	32.4	L	PC	Dup	Own	Zen	G	Bos	Non	B&B	P	Own 10	A	8	Spi	Own G	W	F	11.65	55.4	B	Own G	She	Own	StM	Non	8200
Schacht 13 Ton	4600	131½	36x6	40x12	Wis VAU	4½x6	32.4	L	PC	Dup	Own	Zen	G	Bos	Non	B&B	P	Own 13	A	8	Spi	Own G	W	F	14.0	66.5	B	Own G	She	Own	StM	Non	8400
Schacht 15 Ton	5000	131½	36x7	40x7	Wis VAU	4½x6	32.4	L	PC	Dup	Own	Zen	G	Bos	Non	B&B	P	Own 15	A	8	Spi	Own G	W	F	14.0	66.5	B	Own G	She	Own	StM	Non	8700
Sterling DWS-10T	....	130	36x4	36x8	Own CU	4¾x5¾	30.6	L	PC	Wau	Own	Zen	V	Eis	.....	H-S	O	B-L 50	U	4	Spi	Tim 6566	W	F	8.5	45.5	A	Tim 1544B	Mat	Ros	Hoo	.....	4680
Sterling EW-15T	....	148	36x5	40x10	Own DU	4½x6¼	32.4	L	PC	Wau	Own	Zen	V	Eis	.....	H-S	O	Own	A	3	Spi	Tim 6666	W	F	10.3	46.6	A	Tim 1632B	Mat	Ros	Hoo	.....	7775
Sterling EW-20T	....	148	36x6	40x12	Own DU	4½x6¼	32.4	L	PC	Wau	Own	Zen	V	Eis	.....	H-S	O	B-L 60	A	4	Spi	Tim 6760	W	F	10.2	61.0	A	Tim 1632B	Mat	Ros	Hoo	.....	8675
Sterling EWS-24T	....	148	36x6	40x12	Own EU	5 x6¼	40.0	L	PC	Wau	Own	Zen	V	Eis	.....	H-S	O	B-L 60	A	4	Spi	Tim 6760	W	F	10.2	61.0	A	Tim 1730B	Mat	Ros	Hoo	.....	9175
Sterling EC-20T	....	148	36x6	40x12	Own DU	4½x6¼	32.4	L	PC	Wau	Own	Zen	V	Eis	.....	H-S	O	Own	A	6	B.G	Own	C	D	8.7	52.2	A	Tim 1632B	Mat	Ros	Hoo	.....	8100
Sterling EC8-24T	....	148	36x6	40x12	Own EU	5 x6¼	40.0	L	PC	Wau	Own	Zen	V	Eis	.....	H-S	O	Own	A	6	B.G	Own	C	D	8.7	52.2	A	Tim 1632B	Mat	Ros	Hoo	.....	8400
Sterling EC-50T	....	148	36x7	40x14	Own GU	5¾x6¼	46.0	L	PC	Wau	Own	Zen	V	Eis	.....	H-S	O	Own	A	6	B.G	Own	C	D	9.8	59.5	A	Tim 1730B	Mat	Ros	Smi	.....	10100
Walter FL 7 Ton	....	Opt	40x6	40x8	Own FY	4 x5¾	25.6	L	PC	Own	Own	Str	V	Wes	N-E	Own	D	Own FE	U	5	Own	Own FE	W	F	8.50	85.0	A	Own FE	.....	Ros	Day	Non	7700
Walter F 10 Ton	....	.....	40x7	40x8	Own DU	4½x6¼	32.4	L	PC	Own	Own	Zen	V	Wes	N-E	M-E	P	Own F	U	5	Own	Own F	W	F	8.50	85.0	A	Own F	.....	Ros	Day	Non	8500
Walter FR 15 Ton	....	Opt	40x8	40x7†	Own DY	4½x6¾	32.4	L	PC	Own	Own	Zen	V	Wes	N-E	Own	D	Own FR	U	5	Own	Own FR	W	F	8.50	85.0	A	Own FR	.....	Ros	Day	Non	9200

DETAILED MOTOR BUS SPECIFICATIONS: This Table Comprises Motor Bus

Line Number	MAKE AND MODEL	GENERAL								ENGINE								ELECTRICAL SYSTEM					NORMAL SPEED	
				Weights				Tread							Fuel System					Battery				
		Seating Capacity	Chassis Price	Chassis Only	Chassis with Body	Recommended Body Allowance	Wheelbase	Front	Rear	Make and Model	Number of Cylinders Bore and Stroke	Rated Horse Power N.A.C.C.	Valve Arrangement	Oiling System	Radiator Make	Carburetor Make	Fuel Feed	Ignition System Make	Generator and Starter Make	Make	Model	Voltage and Amp. Hr. Cap.	High M. P. H.	Low M. P. H.
1	Ace C	30	4850	6500	11500	5000	204	70	80½	Cont 7T	6-4⅛x5¼	40.8	I	PC	Own	Zen	V	Eis	Rem	USL	3HVX8X	6-110	35	6.0
2	Acme 116	16	....	4910	8460	....	180	58	58	Cont 6B	6-3¾x5	33.7	L	PC	Per	Zen	V	Eis	Del	Wil	SJRT-6	6-153	45	....
3	Acme 118	20	....	5110	9280	....	205	58	58	Cont 6B	6-3¾x5	33.7	L	PC	Pen	Zen	V	Eis	Del	Wil	SJRT-6	6-153	45	....
4	Bridgeport 45	30	3850	5500	....	....	178	60	72	Buda EBU	4-4¼x5½	28.9	L	PC	....	Zen	V	Eis	Bos	Wil	....	6-120	....	....
5	Brockway FB	18	....	3850	6350	2500	153	58	58	Wisc SU	4-4 x5	25.6	I	FP	G&O	Zen	V	Eis	L-N	Exi	3XE15-1	12-220	42	10.0
6	Brockway EB4	18	....	4000	6400	2500	153	58	58	Wisc 6Y	6-3⅜x5	....	I	FP	G&O	Zen	V	....	L-N	Exi	3XE15-1	12-220	45	11.0
7	Brockway H	22	....	4975	7975	3000	164	60	65⅞	Cont 6B	6-3¾x5	33.7	L	FP	G&O	Zen	V	Eis	L-N	Exi	3XE15-1	12-220	45	8.5
8	Brockway J	25	....	6585	10585	4000	185	66½	71	Cont 6B	6-3¾x5	33.7	L	FP	G&O	Zen	V	Eis	L-N	Exi	3XE15-1	12-220	35	6.5
9	Clinton 65B	30	4075	5925	8700	2725	184	58½	58½	Buda EBU	4-4¼x5½	28 9	L	PC	Own	Zen	V	Bos	Bos	Pol	615KPN	6-180	30	3.0
10	Clinton 65BS	35	4800	6600	9600	3000	220	68	76¾	Buda YBU	4-4½x6	32 4	L	PC	Own	Zen	V	Bos	Bos	Pol	615KPN	6-180	35	3.0
11	Commerce 60	25	5000	....	....	3000	229	68	75	Cont 6B	6-3¾x5	33.7	L	PC	Lon	Zen	V	Bos	Bos	Wil	SJRT30	6-153	35	6.0
12	Commerce 65	29	6000	....	....	3500	242	68	75	Cont 14H	6-4½x5¾	48.6	L	PC	Lon	Zen	V	Bos	L-N	Wil	SJRT 30	12-153	35	5.0
13	Concord	25	....	....	....	....	196	58½	58½	Buda Bus	6-4x5⅛	38.0	L	PC	Bus	Zen	V	Bos	L-N	Exi	6LXRE13-3	12-240	42	....
14	Day-Elder 20	..	....	5200	7700	2500	168	56	58	Buda KBU	4-4 x5¼	25.6	L	PC	Bus	Zen	V	Eis	Bos	Wil	SJRT6	6-153	35	10.0
15	Day-Elder 25	..	....	5600	8600	3000	180	58	58½	Cont 6B	6-3¾x5	33.7	L	PC	Bus	Zen	V	Eis	Bos	Wil	SJRT6	6-153	35	7.0
16	Day-Elder 30	..	....	7000	11000	4000	196	68½	74	Buda BUS	6-4x5⅛	38.4	L	PC	Bus	Zen	V	Eis	L-N	Wil	SJRT6	12-153	35	7.0
17	Duplex FB	23	....	5500	....	3000	181	58	72	Buda EBUI	4-4¼x5½	28.9	L	PC	Mod	Zen	V	Eis	Wes	Pol	....	6-220	35	10.0
18	Fageol Parlor Car	22	6000	6770	10550	...	230	72	78¼	HaS 75	6-4¼x5½	43.6	I	PC	Lon	Zen	V	Del	Del	Exi	6LXRE13-3	12-240	35	7.0
19	Fageol Street Car	29	5300	6480	10000	....	218	70	78¼	HaS 50	4-4¼x5½	28.9	I	PC	Lon	Zen	V	Del	Del	Exi	6LXRE13-3	12-240	35	7.0
20	Federal	25	....	5450	....	2500	190	60	60	Cont 6B	6-3¾x5	33.7	L	PC	Mod	Zen	V	Eis	Rem	Exi	3LXRE	6-185	35	6.0
21	Fifth Ave. J	25	....	5850	8530	2780	172	67⅝	71½	Yell EZ	4-4 x6	25.6	X	PC	Own	Zen	V	Eis	N-E	Wil	STRN27	12-90	30	7.5
22	Fifth Ave. L	55	4800	6850	12040	5190	174¾	67	77½	Yell EZ	4-4 x6	25.6	X	PC	Own	Zen	G	Eis	N-E	Wil	STRN27	12-90	27	5.0
23	Garford 51D	29	....	6500	9900	3400	187	68	80	Buda YBU	4-4½x6	32.4	L	PC	Own	Str	V	Spl	Rem	Wil	STRN6	6-190	35	5.0
24	Garford KB	17	....	3600	6000	2400	180	58	59½	Wis Y	6-3⅜x5	27.3	I	FP	Lon	Zen	V	A-L	A-L	Wil	SJRT-5	6-135	35	7.3
25	Garford CB	29	....	6900	11300	4400	220	72	76	Wis Z	6-4½x5	48.6	I	FP	Lon	Zen	V	Spl	L-N	Wil	SJRT-30	12-153	57	11.9
26	Gary 45B	40	5500	....	....	....	220	68	72	Bud GL6	6-4½x6	48.6	..	....	Chi	Str	V	Rem	Rem	....	....	....	....	....
27	Graham Bros. YB	20	1760	3700	6200	....	158	56	57¼	Dodge	4-3⅞x4½	24.0	L	PS	McC	Ste	V	N-E	N-E	Exi	6LXC11-1	12-90	30	5.0
28	Grass Premier ZR3	22	5200	5150	8600	3500	200	70	76½	Wau	6-4⅜x5¾	45.9	L	PC	Chi	Str	V	Eis	Ros	Exi	.....	6	40	2.0
29	Guilder 20	17	2500	3650	....	....	152	56	56	Cont 8R	6-3⅜x4½	27.3	..	....	G&O	Zen	V	.....	Bos	....	.....	.....	....	....
30	Guilder 36	25	4850	6000	....	....	204	68	72	Buda Bus	6-4 x5⅛	38.0	..	....	G&O	Zen	V	.....	L-N	....	.....	.....	....	....
31	International SL	16	....	....	....	....	150	56	56½	Lyc Spec	4-3½x5	19.6	L	PC	.....	Own	G	Con	A-L	Pol	.....	6-100	35	....
32	Kissel	18	4500	5200	7780	2400	202	64½	66	Own 4-36	4-4¼x5½	28.9	L	Sp	Spa	Str	V	Bos	Rem	Wil	SJRT6	6-153	40	....
33	Larrabee X-2	16	1910	3450	4850	1400	155	56	56	Cont 8R	6-3¾x4½	27.3	L	PC	Fed	Zen	V	Bos	Bos	Exi	3XE15	6-80	40	8.0
34	Larrabee XH3	21	3600	4670	7670	3000	186	62	66	Cont 6B	6-3¾x5	33.7	L	PC	Fed	Zen	V	Bos	Bos	Exi	36XRE25	6-240	35	7.0
35	Maccar	..	....	7500	12000	4500	228¾	73	77	Buda Bus	6-4 x5⅛	38.4	L	PC	Bus	Str	V	DJ	Bos	Pol	617KPK	6-240	40	7.5
36	Mack AB	25	4650	....	....	....	196	68	63⅜	Own AB	4-4¼x5	28.9	L	PC	Own	Str	V	Spl	N-E	Exi	6LXRE13	12-120	41	10.0
37	Mack AB	29	4750	....	....	....	225	68	63⅜	Own AB	4-4¼x5	28.9	L	PC	Own	Str	V	Spl	N-E	Exi	6LXRE13	12-120	41	10.0
38	Mack AB	25	4750	....	....	....	230	68	63⅜	Own AB	4-4¼x5	28.9	L	PC	Own	Str	V	Spl	N-E	Exi	6LXRE13	12-120	41	10.0
39	Mason Road King C	..	2150	3900	7400	3500	168	56	56	Her OX	4-4 x5	25.6	L	PC	Fed	Zen	V	A-L	A-L	USL	3HVX8X	6-166	35	7.5
40	Master	30	....	6000	9500	3500	194	59	59	Buda EBU	4-4¼x5½	28.9	L	PC	Chi	Zen	V	Eis	Wes	Wil	.....	12-	25	5.0
41	Menominee T	16	....	4290	6400	2600	175°	60	58	Wisc Y	6-3¾x5	27.3	L	PC	Own	Zen	V	Rem	Rem	Wil	SJRT6	6-153	38	....
42	Menominee DB	25	....	6020	9100	3200	186	68	73	Wisc TAU	4-4 x6	25.6	L	PC	Own	Zen	V	Eis	Bos	Wil	SJRT6	6-153	32	6.0
43	Moreland RC	16	2280	3850	5850	2000	180	56	57¼	Herc OBX	4-4 x5	25.6	L	PC	Own	Zen	V	Spl	A-L	Hob	6HTXR15A	6-140	25	....
44	Moreland EC	20	3780	4590	7590	3000	178	61	58	Cont K4	4-4⅛x5¼	27.3	L	FP	Own	Sch	V	Spl	Spl	Hob	6HTXR15A	6-140	25	....
45	Moreland AC	25	4700	5660	9160	3500	187	68	69	Cont L4	4-4½x5½	32.5	L	FP	Own	Sch	V	Spl	Spl	Hob	6HTXR15A	6-140	25	....
46	Pierce-Arrow Z	30	4600	6100	9100	3000	196	68	75⅝	Own	6-4 x5½	38.0	T	FP	Own	Own	P	Del	Del	Wil	SJRN6	6-150	50	3.0
47	Pierce-Arrow Z	30	4750	6200	9700	3500	220	68	75⅝	Own	6-4 x5½	38.0	T	FP	Own	Own	P	Del	Del	Wil	SJRN6	6-150	50	3.0
48	Reo W Sedan	16	2350	3700	7250	3500	176	56	57¼	Own W	6-3 1/16x5	24.3	F	PS	Own	Sch	V	N-E	N-E	Wil	SJRT6	6-153	37	10.0
49	Reo W Street Car	21	2525	3860	7360	3500	176	56	57¼	Own W	6-3 1/16x5	24.3	F	PS	Own	Sch	V	N-E	N-E	Wil	SJRT6	6-153	37	10.0
50	Republic 81	15	....	....	....	2000	185	60	58	Lyc	4-4 x5	25.6	L	PC	Own	Str	V	Bos	Bos	USL	.....	6-109	35	....
51	Ruggles 60	20	....	4500	6300	....	180	58	69½	Wis	6-3⅜x5	27.3	I	FP	Per	Zen	V	Rem	Rem	Wil	STRN-6	6-177	45	5.5
52	Ruggles 70	30	....	5500	8800	....	218	68	72	Wis	6-4½x5	48.6	I	PC	Per	Zen	V	Rem	Rem	Wil	STRN-6	6-177	45	5.5
53	Safeway Six Wheeler	27	....	....	....	....	224°	68	78	Cont 6B	6-3¾x5	33.7	L	PC	Mod	Str	V	Eis	N-E	Wil	.....	12-154	....	....
54	Schacht	25	5900	....	....	4000	197°	67½	84¾	Wis Z	6-4½x5	48.6	L	FP	Own	Str	V	RBo	L-N	Alc	AF11	12-175	55	....
55	Selden Pacemaker	18	2350	3650	....	2000	162°	56	56	Cont 8R	6-3⅜x4½	33.7	L	PC	Own	Str	V	N-E	N-E	Wil	SJRT 30	12-153	50	5.0
56	Selden 52	..	....	7200	10200	3000	195	68	74	Cont 6B	6-3⅜x5	33.8	L	PC	Lon	Zen	V	Eis	N-E	Pol	615KPN	12-300	35	6.2
57	Sterling GB2	29	....	6100	....	....	198	60¼	58½	Own CU	4-4¾x5¾	30.6	L	PC	Own	Zen	V	Eis	Bos	Gou	.....	.....	....	....
58	Sterling GB4	29	....	6200	....	....	198	60¼	58½	Own DU	4-4½x6¼	32.4	L	PC	Own	Zen	V	Eis	Bos	Gou	.....	.....	....	....
59	Sterling GB6	29	....	6800	....	....	223	60¼	58½	Own 6A	6-4 x5¼	38.4	L	PC	Own	Zen	V	Eis	Rem	Gou	.....	.....	....	....
60	Stewart	25	3950	....	....	....	198	....	73¼	Cont	6-3¾x5	33.7	..	FP	G&O	Str	..	Rem	Rem	USL	.....	.....	....	....
61	Stewart	25	4150	....	....	....	220	....	73¼	Cont	6-3¾x5	33.7	..	FP	G&O	Str	..	Rem	Rem	USL	.....	.....	....	....
62	Twin City	25	....	7500	11500	4000	210	72	76	Own TW	4-4¼x6	28.9	I	PC	Mod	Zen	V	Bos	L-N	Wil	SJRT30	12-153	35	6.0
63	Union GW	30	....	6500	10000	3500	241°	73½	75	Wis Z6	6-4½x5	48.6	H	PC	Lon	Zen	V	Bos	Bos	Pol	617KPK	6-190	35	5.0
64	Union EC	21	....	4500	7000	2500	198°	58	58	Wis Y	6-3⅜x5	29.9	H	PC	Lon	Zen	V	Bos	Bos	Pol	KPK617	6-190	40	5.0
65	Uppercu 220-80-S	30	....	7400	11500	3700	220	70	80	Cont 6B	6-3¾x5	33.7	L	PC	McC	Str	V	Del	Rem	Wes	HU 16	6-300	40	8.0
66	Uppercu 220-80-D	68	....	8300	14500	6200	220	70	80	Cont 6B	6-3¾x5	33.7	L	PC	McC	Str	V	Del	Rem	Wes	HU 16	6-300	30	6.0
67	Ward LaFrance 3B	25	4950	6300	9700	3400	196	58	65½	Wau DU	4-4½x6¼	32.4	L	PC	Bus	Str	V	RBo	Rem	Wil	STAT 7	6-177	35	....
68	White 50A	25	4950	5775	....	....	198	58½	67⅜	Own GR	4-4¼x5¾	28.9	L	PC	.....	Zen	V	.....	L-N	Opt	.....	12-132	....	....
68	Wilcox M	..	....	....	....	....	226¼	68½	80	Con 14H	6-4½x5¾	48.6	..	....	.....	Zen	V	Del	Del	....	.....	.....	....	....
70	Yellow Coach Z	67	....	....	....	....	200	72¼	76¾	Yell EZ	4-4 x6	25.6	X	PC	....	Zen	V	Eis	N-E	....	.....	12-100	35	5.0

°—More Wheelbases Furnished
•—Pneumatic
†—Dual Pneumatic
‡—Solid §—Dual Solid
A-K—Atwater Kent
A-L—Auto-Lite Arc—Archibald
Alc—Cincinnati Storage
B&B—Borg & Beck
Bim—Bimel B-L—Brown-Lipe
Bud—Budd Buda—Buda
Blo—Blood Bos—Bosch
Bus—Bush Cam—Campbell
Cla—Clark Col—Columbia
Cont—Continental
D—Multiple Dry Disk
Day—Dayton DJ—De Jon
Del—Delco
D. R.—Drive-shaft & rear
Dtl—Detlaff
E-D—External Driveshaft
E-R—External Rear Wheel
Eis—Eisemann Exi—Exide
F—Head & Side (Engine)
F—Full Floating
½—½ Floating
Fed—Fedders
Fli—Flint Ful—Fuller
FP—Full Pressure to all Bearings, including wrist pins
G—Gravity Glo—Globe
Gem—Gemmer G&O—G & O
Gou—Gould Hob—Hobbs
Hink—Hinkley
HaS—Hall Scott
Herc—Hercules
I—In Head
Ig—Internal Gear
I-F—Internal Four Wheels
Ind—Indestructible
I-R—Internal Rear Wheels

Personals

(*Continued from page 32*)

C. W. McElroy has resigned as vice-president and general sales manager of Canadian Ruggles, Ltd., Canadian distributors of Ruggles trucks. He is returning to the states, future plans not announced.

B. N. MacGregor has been appointed sales manager of the Cable Division of the Packard Electric Co. He succeeds **W. F. Parker** who was made general manager of the transformer division.

E. M. McLean was advanced from sales division manager to general sales manager of the Four Wheel Drive Auto Company. He was formerly connected with the Armleder Company as sales manager. **S. H. Sanford,** formerly sales division engineer, will fill the vacancy.

John J. Machacek, formerly in the service field with the Eisemann Magneto Corp., has been appointed district sales manager of the Lincoln Products Co.

Addis E. McKinstry was elected a director of the International Harvester Co. at a recent meeting. The other directors were re-elected.

R. E. Nelles has resigned from the Cleveland Crane & Engineering Co. where he was manager of the Tramrail Division to accept a similar position with the Reading Chain & Block Co., Reading, Pa. He will represent this company in the New York district.

Lee W. Price, purchasing agent of the Detroit plant of the Continental Motors Corp., was elected vice-president of the National Association of Purchasing Agents.

Chassis Which Are Designed and Sold Exclusively for Passenger Transportation

Line Number	TRANSMISSION: Clutch Type and Make	Gearset Make and Model	Gearset Location	Gearset Number of Forward Speeds	Universal Make	REAR AXLE: Make and Model	Final Drive	Type	Gear Ratio: Total in High	Gear Ratio: Total in Low	Service Brake Type & Location	Front Axle Make and Model	Steering Gear Make	TIRES AND WHEELS: Tires (in.) Front	Tires (in.) Rear	Wheels—Make	Rims—Make	DIMENSIONS (in.): Floor Height	Turning Radius	Overall Length	Overall Width	Clearance from Ground
1	D. B. L.	B. L. 60	U	4	U-M	Tim 6516	Wo	F	5.4	26.6	I-R	Tim 1550	Ros	36x6	38x7	Day	Fir	27½	34	316	90	9¾
2	D. B. L.	B. L. 51	U	4	Blo	Cla B6000	.....	½	5.5	26.4	I-R	Shu	Ros	34x7*	34x7*	Smi	Fir	21¾	.....	259	83¾	9¾
3	D. B. L.	B. L. 51	U	4	Blo	Cla B6000	.....	½	5.5	26.4	I-R	Shu	Ros	34x7*	34x7*	Smi	Fir	21¾	.....	276	83¾	9¾
4	D. B. L.	B. L. 50	U	4	Spi	Tim 6560	Wo	F	6.7	.....	I-R	She Spec	Ros	36x6*	36x6†	Bud	.....	31½	.....	.....	.....	.....
5	D. B. L.	B. L. 30	U	3	Spi	Col 53000	B	¾	5.1	.....	E-R	Col 5200	Gem	32x6	32x6	Van	Fir	28½	28	243	64	9
6	D. B. L.	B. L. 30	U	3	Spi	Col 53000	B	¾	5.1	.....	E-R	Col 5200	Gem	32x6	32x6	Van	Fir	28½	28	243	64	9
7	D. B. L.	B. L. 50	U	3	Spi	Tim 5816	B	½	5.8	.....	.....	Shu 5550	Ros	33x5	33x5†	Bud	Fir	.....	30	256	74	8½
8	D. B. L.	B. L. 55	U	4	Spi	Cla 3D	Ig	D	7.0	.....	.....	Shu 610B	Ros	36x6	36x6†	Bud	Fir	27½	32	295¼	90	7½
9	D. B. L.	B. L. 55	S	4	M-E	Tim 3566	Wo	F	6.5	34.8	I-R	Tim1544B	Ros	36x6*	36x6†	Bud	Fir	30	37	270	75½	9½
10	D. B. L.	B. L. 55	S	4	M-E	Tim 6516	Wo	F	6.7	36.1	I-R	Tim 1550	Ros	36x6	36x6†	Bud	Fir	26	40	286	90	7
11	B. L. 70	B. L. 60H	A	4	Blo	Tim 6516	Wo	F	6.8	27.2	I-R	Tim 1550	Ros	36x6	36x6†	Bud	Fir	20½	.....	330	88⅞	7
12	B. L. 70	B. L. 60H	A	4	Blo	Tim 6516	Wo	F	5.4	21.6	I-R	Tim 1550	Ros	36x6	36x6†	Bud	Fir	20½	.....	343	88⅞	7
13	D. B. L.	B. L. 51	U	4	Spi	Tim 6566	Wo	F	6.0	.....	.....	Tim 1544	Ros	36x6	36x6†	Bud	Fir	32	.....	.....	.....	9
14	D. B. L.	B. L. 35	U	3	Spi	Tim 6462	Wo	½	6.5	21.8	I-R	Tim 1526	Gem	36x6*	38x7*	Van	Fir	32	30	246½	70½	11
15	D. B. L.	B. L. 51	U	4	Spi	Tim 6566	Wo	F	6.7	36.1	I-R	Tim 1544	Gem	36x6*	40x8*	Bud	Fir	32	30	260	75½	12
16	D. B. L.	B. L. 51	U	4	Spi	Huck 85	R	F	5.7	30.6	I-R	She D 445	Gem	36x6*	36x6*	Bud	Fir	25	27	293	90	10½
17	D. B. L.	B. L.	U	4	Pet	Vul 4	Wo	F	6.5	32.1	I-R	Shu	Ros	34x5	34x5†	Mot	Fir	27	28	268	82	9
18	D. B. L.	B. L. 55	U	4	Spi	Tim 6516	Wo	F	4.6	19.7	I-R	Tim 1550	Ros	36x6*	36x6†	Bud	.....	20¾	38½	342	89	7½
19	D. B. L.	B. L. 50	U	4	Spi	Tim 6516	Wo	F	4.6	19.7	I-R	Tim 1524	Ros	36x6*	36x6†	Bud	....	22½	38	339	89	7½
20	P. B. & B	Det R400	S	4	Spi	Tim 6566	Wo	F	6.7	39.8	.....	Own	Gem	36x6*	36x8*	Smi	Fir	30	28	266⅜	.....	10
21	P. Own	Own J	S	4	Sne	Tim 6412	Wo	½	5.4	21.6	I-R	Tim 1523	Ros	36x6*	36x6†	Bud	.....	29½	33	277	87½	7
22	P. Own	Own L	S	4	Sne	Own L	Ig	F	6.6	.....	E-D	Own L	Ros	36x5‡	36x5§	Own	.....	25	33	296	90	6
23	D. Own	Own 51D	S&U	8	Spi	Tim 6511G	Wo	F	5.4	26.1	I-R	Tim 1550	Ros	36x6*	36x6†	.....	Fir	28¼	30	295	91	7
24	D. B. L.	B. L. 31	U	3	U-M	Tim 5516H	B	½	5.3	21.3	I-F	Tim 2341H	Lav	32x6	32x6	Day	Fir	23	28	.....	84	9
25	D. B. L.	B. L. 60S	U	4	Spi	Tim	Wo	F	4.8	16.7	I-F	Tim 1560C	Ros	36x6	36x6†	Bud	Fir	23	35	.....	.....	6½
26	Ful	Ful	U	4	Spi	Tim	Wo	F	.....	.....	.....	Tim	Ros	36x6*	36x6†	Bud	Fir	26	.....	298	.....	.....
27	D. Dodge	Dodge	U	3	UP	Own	SP	½	6.3	26.3	-R	Tim 1760A	Dodge	32x6	34x7	Smi	Fir	26	29½	252¼	87¼	10
28	D. B. L.	B. L. 51	S	7	Spi	Tim 6566	Wo	F	4.6	.....	I-F	Con	Ros	32x6	32x6†	Van	Fir	22	33	298	89	7
29	D. B. L.	B. L. 31	....	3	.....	.....	B	.....	.....	.....	.....	Shu 5410	Ros	36x5	33x5†	Bud	.....	25	.....	.....	.....	.....
30	D.	B. L. 51	....	4	.....	.....	R	.....	.....	.....	.....	She 445	.....	36x6	36x6†	Bud	.....	26	.....	.....	.....	.....
31	D. Mun	Mun	U	3	Own	Eat	Ig	F	5.4	.....	I-R	Eat	Own	33x5	33x5	Own	.....	24	.....	217	56	.....
32	D. B. L.	B. L. 35	U	4	Spi	Wis 60B	R	...	5.8	19.0	I-R	Shu 610	Ros	34x7*	34x7*	Whi	Gdy	24	.....	252	76	8
33	D. B. L.	B. L. 31	U	3	Sne	Sal D	B	¾	7.7	27.6	E-R	Sal	Gem	34x5	34x5	Ind	Fir	29	27	220	70	11
34	D. B. L.	B. L. 31	U	3	Spi	She	W	½	5.5	26.4	I-R	Shu5550B	Ros	32x6	32x6†	Bud	.....	25	28	262	86	9
35	D.B.L.	B.L. 55	U	4	Spi	Huck 85	R	F	6.65	35.8	I-R	She D 445	Ros	34x7	34x7†	Bud	Fir	27½	41	312½	92½	7½
36	D. Own	Own AB	U	4	Spi	Own AB	R	F	6.7	21.5	I-R	Own AB	Own	32x6*	32x6*	Bud	Fir	25¾	28¼	228	78½	8¾
37	D. Own	Own AB	U	4	Spi	Own AB	R	F	6.7	21.5	I-R	Own AB	Own	32x6*	32x6*	Bud	Fir	25¾	32	317¼	78½	8¾
38	D. Own	Own AB	U	4	Spi	Own AB	R	F	6.7	21.5	I-R	Own AB	Own	32x6*	32x6*	Bud	Fir	27¼	32½	307¼	78½	10¾
39	B&B	Cam	A	3	U-M	Fli	SP	½	5.3	21.5	E-R	Fli	Lav	30x5	30x5†	Bud	Fir	24	27	244½	75	7½
40	D. Ful	Ful GU7	U	4	Spi	Wal 25A	R	F	7.6	37.0	-R	Shu 610	Ros	36x6	40x8	StM	Fir	26	33½	.....	.....	.....
41	D. Det	Cot AAU	U	3	Spi	Wis 40R60	R	½	.....	.....	I-R	.....	Ros	32x6*	32x6†	Ind	.....	23½	28	.....	.....	10
42	D-Det	Cot AU	U	4	Spi	Wis 120K	R	½	6.1	32.0	I-R	Tim 1550	Ros	36x6*	36x6†	Ind	Fir	26	30	256	86	10
43	D. B. L.	B. L. 30	U	3	Pet	Tim 5512	Wo	½	5.5	22.0	E-R	Tim 1250	Ros	32x6	32x6	Own	Gdy	23½	.....	.....	.....	7
44	D. B. L.	B. L. 51	U	4	Pet	Tim 6410	Wo	½	6.0	32.1	I-R	Tim 1550	Ros	34x5*	34x5†	Bud	.....	24½	.....	.....	.....	8½
45	D. B. L.	B. L. 51	U	4	Pet	Tim 6511	Wo	F	6.0	32.1	I-R	Tim 1550	Ros	36x6*	36x6†	Bud	.....	25½	.....	.....	.....	9
46	Own	Own W	A	4	Spi	Own W	Wo	F	6.0	32.0	E-D	Own	Own	36x5‡	36x5‡	Day	.....	28	37½	282	89 1/8	8
47	Own	Own W	A	4	Spi	Own W	Wo	F	6.0	32.0	E-D	Own	Own	36x5‡	36x5	Day	.....	28	40	303	89 1/8	8
48	Own	Own W	S	3	Own	Own W	SP	½	5.7	21.0	E-R	Own W	Own	32x6	34x7	Bud	.....	28½	31	197	85	8½
49	Own	Own W	S	3	Own	Own W	SP	½	5.7	21.0	E-R	Own W	Own	32x6	32x6†	Bud	.....	28½	31	264½	88½	8 1/8
50	Ful	Ful	U	3	Spi	Eat	Ig	D	6.2	25.0	E-D	Eat	Jac	34x7	34x7	Van	Fir	21	.....	270½	67¼	7½
51	D. B. L.	B. L.	U	4	.....	Col 53000	S	¾	5.12	27.3	A	Shu 5550	Jac	32x6	32x6	Bud	Fir	24	28	272	90	9
52	D. B. L.	B. L. 60	U	4	.....	Wis 66	R	F	5.83	23.3	A	Shu 5550B	.....	32x6	32x6	Bud	Fir	24	32	310	90	9
53	B-L	B-L	U	4	Blo	Tim 6420	Wo	F	.....	.....	I-R	Tim 1550	Ros	34x7	34x7	Bud	.....	.....	35	320¼	90	.....
54	D. Ful	Own	A	8	Blo	Wis	R	F	6.0	30.0	I-F	Shu	Ros	36x6*	36x6†	Bud	Fir	24½	33½	.....	91¼	7½
55	D.B.L.	B.L. 31	U	3	Blo	Cla 501	B	½	Opt.	Opt.	.....	Shu	Ros	32x6	32x6	Van	.....	24	.....	Opt.	Opt.	7½
56	D. B. L.	B. L.	S	4	Spi	Tim	Wo	F	7.7	31.0	-R	Tim	Gem	36x5	36x5	Arc	Fir	29¼	33	309	91	7
57	D. B. L.	B. L. 50	U	4	Spi	Tim 6564	Wo	F	5.4	28.9	.....	Tim 1554B	Ros	36x6*	36x6†	Bud	.....	.....	.....	287	.....	.....
58	D. B. L.	B. L. 55	U	4	Spi	Tim 6564	Wo	F	5.4	28.9	.....	Tim 1544B	Ros	36x6*	36x6†	Bud	.....	.....	.....	287	.....	.....
59	D. B. L.	B. L. 55	U	4	Spi	Tim 6564	Wo	F	5.4	28.9	.....	Tim 1544B	Ros	36x6*	36x6†	Bud	.....	.....	.....	318	.....	.....
60	D.	.....	U	4	.....	.....	B	.....	.....	.....	.....	.....	.....	32x6	32x6†	Bun	.....	.....	.....	.....	.....	8
61	D.	.....	U	4	.....	.....	B	.....	.....	.....	.....	.....	.....	32x6	32x6†	Bud	.....	.....	.....	.....	.....	8
62	D. Ful	Ful HU-16	U	4	Spi	Tim6518B2	Wo	F	4.8	30.2	I-R	Tim1560B2	Ros	36x6*	36x6†	Bud	.....	22	.....	310	90	7
63	Ful HU16	Ful 4	A	4	Blo	Wis 675	R	F	5.8	34.8	I-R	Shu 610B	Jac	32x6	32x6†	Bud	.....	26	30	343	90	6
64	Ful GU14	Ful 4	U	4	Blo	Wis 460	R	F	5.0	24.0	I-R	Shu 5550B	Jac	34x7	34x7	Bud	.....	26	28	280	87	9
65	B. L.	B. L.	....	....	Own	.....	.....	.....	.....	.....	D.R.	.....	Ros	38x9*	36x10	Own	Fir	19	27	330	95	9
66	B. L.	B. L.	....	....	Own	.....	.....	.....	.....	.....	D.R.	.....	Ros	38x9*	36x10	Own	Fir	19	27	336	95	9
67	D. B. L.	B. L. 55	A	4	Spi	Tim 6566	Wo	F	6.0	32.1	I-R	Col	Ros	36x6*	36x6†	Bud	Fir	28	36	304	75½	9½
68	Own	Own 50A	U	4	Spi	Own 50A	R	1/6	4.6	23.2	E-D	Own 50A	Own	32x6	32x6†	Bud	Fir	28¼	32½	274¾	81⅜	7 1/8
69	D.	.....	U	4	.....	.....	R	F	6.5	.....	I-R	.....	.....	36x6	36x6†	.....	.....	21½	.....	324	94	.....
70	P. Own	Cot	S	4	Spi	Tim	Wo	½	6.2	.....	I-R	Tim	Ros	34x6†	34x6†	Day	.....	25¾	36	290¾	89⅜	.....

Joh—Johnson **Kel**—Kells
L—L-Head **Lav**—Lavine
L-N—Leece-Neville **Lon**—Long
M&E—Merchant & Evans
McC—McCord
Mot—Motor Wheel Corp.
N-E—North-East
NP—No Provision
Opt—Optional
P—Single Plate **Pet**—Peters
PC—Pressure to all Crankshaft & connecting Rod Bearings—Splash to other parts
Pol—Prest-O-Lite
R—Double Reduction
Ros—Ross
Rem——Remy
R&V—R & V Knight
Sal—Salisbury **Sew**—Sewell
Sne—Snead **SP**—Spiral Bevel
S—Separate Unit **Spi**—Spicer
She—Sheldon **Spa**—Sparton
StM—St. Marys
Shu—Shuler
Ste—Stewart
Str—Stromberg
Sp—Splash
Tim—Timken
U—Unit with Engine
U. P.—Universal
Van—Van Motor Wheels
V—Vacuum
Wal—Walker
Whi——Whitcomb
Wes—Westinghouse
Wil—Willard **Wisc**—Wisconsin
Wis—Wisconsin **Wo**—Worm
X—Sleeve Valve
Yell—Yellow **Zen**—Zenith
a—Other ratios optional

I. J. Reuter, general manager of the Olds Motor Works, announced the appointment of **D. S. Eddins** as general sales manager. Mr. Eddins has been connected with every phase of the selling division of the automobile industry during the past 18 years.

Carroll J. Rogers has been appointed chief supervisor of Willys-Overland, Inc. He has been doing special work for this company for the past two years.

J. C. Ruske has been appointed manager of sales for the province of Ontario for Willys-Overland, Ltd.

George W. Smith, formerly at the head of the experimental and research departments of the White Motor Company, recently returned as technical assistant to Thomas H. White, vice-president and general manager of the company. Mr. Smith will have charge of the technical division of the staff.

S. S. Smith has been appointed manager of the Springfield office of the Stewart Truck Corp., of New England. He has had eight years' service at the Boston headquarters.

A. Edward Trudo, mechanical superintendent of the Fisk Rubber Co., has been elected president of the Engineering Society of Western Massachusetts.

Robert A. Wilson, associated for the past ten years with the Bauch Machine Tool Co. in various engineering capacities, has been named chief engineer of the Hoefer Mfg. Co., Freeport, Ill.

Raymond Zindle, of the Society for Electrical Research, recently left for a trip abroad. Mr. Zindle is in charge of the programs of storage battery transportation promotion and will advise with those interested in this development, especially in Paris and Milan.

KEY OF ABBREVIATIONS

Wheelbase:

°—More than one wheelbase furnished.

Tires:

§§—Unless marked otherwise all tires are solids.
•—Pneumatics standard equipment.
‡—Pneumatics at Extra Cost.
†—Dual on Rear.

Engine:

Bud—Buda Co., Harvey, Ill.
Con—Continental M. Corp., Detroit, Mich.
D—Head & Side
GBS—Golden, Belknap & Swartz Co., Detroit, Mich.
H—Overhead.
HaS—Hall-Scott Motor Car Co., Berkeley, Cal.
Her—Hercules M. Mfg. Co., Canton, Ohio.
Himico—Hinkley Motors, Inc., Detroit, Mich.
Hin—Hinkley Motors, Inc., Detroit, Mich.
H-S—Herschell-Spillman Motor Co., North Tonawanda, N. Y.
Jackson—Master Motor Truck Mfg. Co., Chicago, Ill.
Kni—Yellow Sleeve Valve Eng. Works, East Moline, Ill.
L—L-Head.
Lyc—Lycoming M. Corp., Williamsport, Pa.
Mid—Midwest Eng. Co., Indianapolis, Ind.
FP—Full Pressure to all bearings including wrist pins.
Overland—Willys-Overland Co., Toledo, O.
PC—Pressure to all crankshaft and connecting rod bearings.
PS—Pressure with splash.
SP—Circulating splash.
T—T-Head.
Wau—Waukesha M. Co., Waukesha, Wis.
Wis—Wisconsin M. Mfg. Co., Milwaukee, Wis.
X—Sleeve.

Governor:

Con—Continental M. Corp., Detroit, Mich.
Dup—Duplex Eng. Gov. Co., Brooklyn, N. Y.
Han—Handy Gov. Co., Detroit, Mich.
Hin—Hinkley Motors, Inc., Detroit, Mich.
K. P.—K. P. Products Co., New York, N. Y.
McK—E. R. Klemm, Chicago, Ill.
Mon—Monarch Gov. Co., Detroit, Mich.
Non—Not Supplied.
Pha—Pharo Mfg. Co., Detroit, Mich.
Pie—Pierce Governor Co., Anderson, Ind.
Sim—Duplex Eng. Gov. Co., Brooklyn, N. Y.
Wau—Waukesha M. Co., Waukesha, Wis.

Radiator:

Bus—Bush Mfg. Co., Hartford, Conn.
Chi—Chicago Mfg. Co., Chicago, Ill.
E-M—English & Mersick Co., New Haven, Conn.
Fed—Fedders Mfg. Co., Buffalo, N. Y.
Fle—Flexo Mfg. Co., Los Angeles, Cal.
G&O—G. & O. Mfg. Co., New Haven, Conn.
Har—Harrison Rad. Corp., Lockport, N. Y.
Idl—Ideal Sheet Metal Works, Chicago, Ill.
Liv—Livingston Radiator Corp., Plainfield, N. J.
Lon—Long Mfg. Co., Detroit, Mich.
McC—McCord Rad. & Mfg. Co., Detroit, Mich.
Mod—Modine Mfg. Co., Racine, Wis.
Per—Racine Radiator Co., Racine, Wis.
R-T—Rome-Turney Rad. Co., Rome, N. Y.
Stn—Standard Radiator Co., Inc., Springville, N. Y.

Fuel System:

Car—Carter Carburetor Co., St. Louis, Mo.
Ens—Ensign Car. Co., Los Angeles, Cal.
G—Gravity.
Hol—Holley Carburetor Co., St. Louis, Mo.
Joh—Johnson Co., Detroit, Mich.
Mar—Marvel Carburetor Co., Flint, Mich.
P—Pressure.
Ray—Beneke & Kropf Mfg. Co., Chicago, Ill.
She—Wheeler Schebler Carburetor Co., Indianapolis, Ind.
Ste—Detroit Lubricator Co., Detroit, Mich.
Str—Stromberg Motor Devices Co., Chicago, Ill.
Til—Tillotson Mfg. Co., Toledo, Ohio.
V—Vacuum.
Zen—Zenith-Detroit Corp., Detroit, Mich.

Electrical System:

‡—Generator & Starter at Extra Cost.
†—Starter not Supplied, Generator at Extra Cost.
°—Starter at Extra Cost.
A-L—Electric Auto-Lite Corp., Toledo, O.
Apo—Apollo Magneto Corp., Apollo, Pa.
Bij—Bijur Motor Appliance Co., Hoboken, N. J.
Bos—American Bosch Magneto Co., Springfield, Mass.
Con—Connecticut Telephone & Electric Co., Meriden, Conn.
Del—Dayton Engin. Lab. Co., Dayton, Ohio.
Dyn—Owen Dyneto Corp., Syracuse, N. Y.
Eis—Eisemann Magneto Corp., Brooklyn.
G&D—Gray & Davis, Boston, Mass.
L-N—Leece-Neville Co., Cleveland, O.
N-E—North East Elec. Co., Rochester, N. Y.
Non—Not Supplied.
Rem—Remy Electric Co., Anderson, Ind.
RBo—Robert Bosch Magneto Co., New York, N. Y.
Sci—Scintilla Magneto Co., New York, N.Y.
Sim—Simms Magneto Co., E. Orange, N. J.
Spl—Splitdorf Electrical Co., Newark, N. J.
Ves—Vesta Battery Corp., Chicago, Ill.
Wes—Westinghouse Elec. & Mfg. Co., Springfield, Mass.

Clutch and Gearset:

•—Other ratios optional.
A—Amidships.
B & B—Borg & Beck Co., Chicago, Ill.
B-L—Brown-Lipe Gear Co., Syracuse, N. Y.
Cot—Cotta Transmission Corp., Rockford Ill.
Cov—Covert Gear Co., Lockport, N. Y.
Det—A. J. Detlaff Co., Detroit, Mich.
D-G—Detroit Gear & Machine Co., Detroit, Mich.
Dod—Dodge Brothers Co., Detroit, Mich.
D—Disk.
Dur—Durston Gear Corp., Syracuse, N. Y.
Ful—Fuller & Sons Mfg. Co., Kalamazoo, Mich.
H-S—Hele-Shaw, Merchant & Evans Co., Philadelphia, Pa.
J—Unit with Jackshaft.
K—Cone.
Lon—Long Mfg. Co., Detroit, Mich.
M-E—Merchant & Evans Co., Phila., Pa.
Mun—Muncie Gear Works, Muncie, Ind.
O—Disk in Oil.
P—Plate.
R—Rear Axle.
U—Unit with Engine.
W-G—Warner Gear Co., Muncie, Ind.

Universal:

B.G.—Universal Machine Co., Bowling Green, Ohio.
Blo—Blood-Bros. Mach. Co., Allegan, Mich.
Det—Universal Products Co., Detroit, Mich.
Har—Hartford Auto Parts Corp., Hartford, Conn.
M-E—Merchant & Evans Co., Phila., Pa.
Pet—Cleveland Universal Parts Co., Cleveland, Ohio.
Pic—Carl Pick Co., West Bend, Wis.
Sne—Snead & Co., Jersey City, N. J.
Spi—Spicer Mfg. Corp., S. Plainfield, N. J.
The—Thermoid Rubber Co., Trenton, N. J.
U-M—Universal Machine Co., Bowling Green, Ohio.
U-P—Universal Products Co., Detroit, Mich.

Front and Rear Axles:

½—Semi-Floating.
¾—Three-Quarter Floating.
Cla—Clark Equip. Co., Buchanan, Mich.
Col—Columbia Axle Co., Cleveland, O.
Con—Continental Axle Co., Edgerton, Wis.
C—Chain.
B—Straight Bevel.
D—Dead.
Eat—Eaton Axle Co., Cleveland, Ohio.
F—Floating.
I—Internal Gear.
P—Spur Gear.
R—Double Reduction.
Rus—Russel Motor Axle Co., Detroit, Mich.
S—Spiral Bevel.
Sal—Salisbury Axle Co., Jamestown, N. Y.
She—Sheldon Axle & Spring Co., Wilkes-Barre, Pa.
Shu—Shuler Axle Co., Inc., Louisville, Ky.
Std—Standard Parts Co., Cleveland, O.
Tim—Timken Detroit Axle Co., Detroit, Mich.
Tor—Eaton Axle & Spring Co., Cleveland, Ohio.
Vul—Vulcan Motor Axle Co.
Wal—Walker Axle Co., Chicago, Ill.
W—Worm.
Wis—Wisconsin Parts Co., Oshkosh, Wis.

Brake:

A—Rear Wheels only.
B—Drive Shaft and Rear Wheels.
C—Front and Rear Wheel.
D—Jackshaft and Rear Wheels.
E—4 Wheel Brakes.

Springs:

Amc—American Auto Parts Co., Detroit, Mich.
Arm—General Motors Co., Pontiac, Mich.
Bea—Beans Spring Co., Inc., Massillon, O.
Bet—Betts Bros. Sp. Co., Inc., San Francisco, Cal.
Cha—Champion Auto Sp. Co., St. Louis, Mo.
Del—D. Delany & Son, Newark, N. J.
Det—Detroit Steel Prod. Co., Detroit, Mich.
G-C—Garden City Sp. Works, Chicago, Ill.
Har—Harvey Sp. & Forging Co., Racine, Wis.
Lah—Laher Auto Spring Co., Portland, Ore.
Mar—Maremont Mfg. Co., Chicago, Ill.
Mat—Mather Spring Co., Toledo, O.
Mer—E. R. Merrill Spring Co., New York.
Pen—Penn Sp. Works, Baldwinsville, N. Y.
Per—Perfection Sp. Co., Cleveland, O.
Row—William & Harvey Rowland, Phila, Pa.
She—Sheldon Axle & Sp. Co., Wilkes-Barre, Pa.
S. P.—Spring Perch Co., Stratford, Conn.
S. S.—Standard Steel Sp. Co., Coraopolis, Pa.
Tut—Tuthill Sp. Co., Chicago, Ill.
U. S.—United States Sp. Co., Los Angeles, Cal.

Steering Gear:

CAS—C. A. S. Products Co., Columbus, O.
Dod—Dodge Bros. Co., Detroit, Mich.
Gem—Gemmer Mfg. Co., Detroit, Mich.
Jac—Saginaw Products Co., Saginaw, Mich.
Lav—Lavine Gear Co., Milwaukee, Wis.
Ros—Ross Gear & Tool Co., Lafayette, Ind.
Woh—Wohlrab Gear Co., Racine, Wis.

Wheels:

Arc—Archibald Wheel Co., Lawrence, Mass.
A-W—Auto Wheel Co., Lansing, Mich.
Bet—Bethlehem Steel Co., Bethlehem, Pa.
Bim—Bimel Spoke & Auto Wheel Co., Portland, Ind.
Bud—Budd Wheel Co., Phila., Pa.
Cla—Clark Equip. Co., Buchanan, Mich.
Day—Dayton Steel Foundry Co., Dayton, Ohio.
Dis—Disteel Wheel Corp., Detroit, Mich.
Hay—Hayes Wheel Co., Jackson, Mich.
Hoo—Hoopes, Bro. & Darlington, Inc., West Chester, Pa.
Ind—Indestructible Wheel Co., Lebanon, Ind.
Int—Interstate Foundry Co., Chicago, Ill.
Jon—Jones, Phineas & Co., Newark, N. J.
Kel—Kelsey Wheel Co., Detroit, Mich.
M-M—Michigan Malleable Iron Co., Detroit.
Mot—Motor Wheel Corp., Lansing, Mich.
Mun—Muncie Wheel Co., Muncie, Ind.
Nor—Northern Wheel Corp., Alma, Mich.
Pru—Prudden Wheel Co., Lansing, Mich.
Roy—Royer Wheel Co., Aurora, Ind.
Sch—Schwarz Wheel Co., Phila., Pa.
Smi—Smith Wheel, Inc., Syracuse, N. Y.
StM—St. Marys Wheel Co., St. Marys, O.
Std—Standard Wheel Co., Terre Haute, Ind.
Van—Van Wheel Corp., Oneida, N. Y.
Way—Wayne Wheel Co., Newark, N. Y.

Rim Equipment:

Fir—Firestone Steel Products Co., Akron, Ohio.
Gdy—Goodyear Tire & Rubber Co., Akron, Ohio.
Hay—Hayes Wheel Co., Jackson, Mich.
Jax—Jaxon Steel Prod. Co., Jackson, Mich.
Kel—Kelsey Wheel Co., Detroit, Mich.
Non—None Supplied.

Replacement Table—Corrected Monthly

Including Piston Ring Sizes, Carburetor Sizes, Hose Sizes, Fan Belt Sizes, Brake Lining Sizes and Truck Frame Dimensions

*** Note: Under Carburetor Inlet Diameter Will be Found Either the Size of Main Air Intake or the Gasoline Fuel Line**

Fan Belt Type: V—V-Shape, F—Flat, R—Round

NAME, MODEL AND TONNAGE	ENGINE												BRAKE LINING								FRAME				
	Piston Rings		Carburetor			Upper Hose		Lower Hose		Fan Belt			Service				Emergency				Length			Width	
	No. per Cyl.	Width	Outlet Diameter	Inlet Diameter *	Vertical or Horizontal	Length	Width	Length	Width	Length	Width	Type	Length	Width	Thickness	No. of Pieces	Length	Width	Thickness	No. of Pieces	Back of Driver's Seat	Driver's Seat to Center of Rear Axle	Over All	Over All	Clearance at Lowest Point of Chassis
Ace 40–1½	3	1/4	1	1	V	7	1¾	8	1¼	40⅝	2	F	12	3¼	¼	4	12	3¼	¼	4	122½	76⅜	215¼	32	9
Ace 60–3	3	1/4	1¼	¼	V	10	2	15	1¼	42⅜	2	F	13½	3½	¼	4	13½	3½	¼	4	Opt	84½	241	.....	9½
Acme Flyer	3	¼	1	1½	V	8¾	1½	10	1¼	42	1½	F	23	2½	¼	2	48	2¼	1/4	1	96⅞	56⅞	189	34	8½
Acme 20L–1½	3	1/4	1¼	1¼	V	7	1¼	11	1¼	34	1¼	F	12	3	¼	4	12	3	¼	4	108⅝	63⅜	200	34	10½
Acme 60L–3	4	¼	1¼	1¼	V	11½	1½	12½	1½	41¾	1½	F	13	3½	¼	2	13	3½	¼	2	140⅛	79⅜	235½	34	10
Acme 90L–5	4	¼	1½	1½	V	10	1½	10	1½	40½	1¾	F	15½	3¾	¼	2	15½	3¾	¼	2	153¾	96¾	255	37	10¾
Acme 125–6¼	4	¼	1½	1½	V	10	1½	10	1½	40½	1¾	F	18	4	¼	2	18	4	¼	2	159¾	99¾	261	37	10
American-LaFrance W	3	¼	1 11/16	1 11/16	V	5⅛	1½	10½	1½	36	2	F	†	†	¼	4	17	3½	¼	4	132	81 1/4	236 1/4	33	10
American-LaFrance W	3	¼	1 11/16	1 11/16	V	5⅛	1½	10½	1½	36	2	F	†	†	¼	4	17	3½	¼	4	156	98 1/4	260 1/4	33	10
American-LaFrance W	3	¼	1 11/16	1 11/16	V	5⅛	1½	10½	1½	36	2	F	†	†	¼	4	17	3½	¼	4	180	110 1/4	284 1/4	33	10
American-LaFrance Y	3	¼	1 11/16	1 11/16	V	9	1½	11½	1½	42	2	F	11¾	8	¼	2	21	4	¼	4	144¼	89⅞	244¼	35 11/16	9
American-LaFrance Y	3	¼	1 11/16	1 11/16	V	9	1½	11½	1½	42	2	F	11¾	8	¼	2	21	4	¼	4	168¼	103⅞	268¼	35 11/16	9
American-LaFrance Y	3	¼	1 11/16	1 11/16	V	9	1½	11½	1½	42	2	F	11¾	8	¼	2	21	4	¼	4	210¼	124⅞	310⅞	35 11/16	9
American-LaFrance V	3	¼	1 11/16	1 11/16	V	9	1½	11½	1½	42	2	F	11¾	8	¼	2	21	4	¼	4	144¼	90¼	244¼	36	10
American-LaFrance Y	3	¼	1 11/16	1 11/16	V	9	1½	11½	1½	42	2	F	11¾	8	¼	2	21	4	¼	4	192¼	113⅞	292¼	35 11/16	9
American-LaFrance V	3	¼	1 11/16	1 11/16	V	9	1½	11½	1½	42	2	F	11¾	8	¼	2	21	4	¼	4	210¼	125	310¼	36	10
Armleder 30–1½	3	¼	1¼	1/4	V	10	1¾	16½	1¼	33 11/16	1½	F	11 11/16	3¼	¼	4	11 11/16	3¼	¼	4	Opt	71⅝	215¾	32	9¼
Armleder 50–2½	4	¼	1¼	1/4	V	12	2	17¾	1¼	35⅝	2	F	13	3½	¼	4	13	3½	¼	4	Opt	77⅞	228¾	32	10
Atterbury 24-R	4	1/4	1¼	5/16	V	10½	1½	16	1½	34¼	5/8	V	11 1/4	3¼	¼	4	11 1/4	3¼	¼	4	119¼	76	211¾	34	9½
Atterbury 22C–2½	4	¼	1¼	5/8	V	10½	1½	16	1½	40½	1½	F	13 1/4	3½	¼	4	13 1/4	3½	¼	4	129¼	78¾	225	34	9⅛
Atterbury 22D–3½	4	¼	1¼	5/8	V	10½	1½	16	1½	40½	1½	F	15⅛	3¾	¼	4	15⅛	3¾	¼	4	142¾	93¼	242	37½	10 1/4
Atterbury 24E	4	¼	1½	5/8	V	10½	1½	16	1½	42⅜	1¾	F	17¾	4	¼	4	17¾	4	¼	4	159¾	89¼	263	37½	10 1/4
Autocar XXI–F–1½	4	1/4	1 1/16	1 5/16	V	5	1⅛	9½	1⅛	.....	.....	...	16¼	2½	1/4	4	13½	2½	1/4	4	91	67	156	34	9½
Autocar XXI–G–1½	4	1/4	1 1/16	1 5/16	V	5	1⅛	9½	1⅛	.....	.....	...	16¼	2½	1/4	4	13½	2½	1/4	4	114	90	179	34	9½
Autocar XXVI–M4–6	3	¼	1 1/16	1 5/8	V	3½	1½	3½	1½	49½	2	F	23½	2¾	¼	4	23½	2¾	¼	4	139¾	80¾	223¼	34 ⅛	10
Autocar XXVI–L4–6	3	¼	1 1/16	1 5/8	V	3½	1½	3½	1½	49½	2	F	23½	2¾	¼	4	23½	2¾	¼	4	175¾	116¾	292¼	34 ⅛	10
Autocar XXVII–H3	3	¼	1 1/16	1 5/8	V	3½	1½	3½	1½	47½	2	F	20½	2	¼	4	20½	2	¼	4	131½	76	213¼	34 ⅛	10 ⅛
Autocar XXVII –K3	3	¼	1 1/16	1 5/8	V	3½	1½	3½	1½	47½	2	F	20½	2	¼	4	20½	2	¼	4	155½	100	237¼	34 ⅛	10 ⅛
Available J–H–1½	4	1/4	2¼	1 1/16	....	11	1⅝	14	1⅝	40	2	...	48	2½	¼	2	36	2½	¼	2	120	80½	201¼	32	9
Available J–H2	4	1/4	2¼	1 1/16	V	12	1⅝	14	1⅝	40	2	F	48	2½	¼	2	36	2½	¼	2	120	84½	212	32	9
Available J–H–2½	3	1/4	2¼	1 1/16	....	11	1⅝	14	1⅝	40	2	...	13½	3½	¼	4	13½	3½	¼	4	144	85⅝	226⅞	32	9
Available J–H–3½	4	1/4	2½	1 1/16	V	12	1⅝	14	1⅝	42	2	F	16	3¾	¼	4	16	3¾	¼	4	168	106⅜	254⅞	36	9
Available J–H–5	3	1/4	2¾	1 11/16	....	12	2	16	2	40	2	...	18	4	¼	4	18	4	¼	4	168	112⅝	263⅛	38	0
Bessemer G–1	3	1/4	1	1/4	V	11½	2¼	10	2¼	42	5/8	V	46	2½	1/4	2	44	2¼	1/4	2	98¼	58½	182¾	34	.....
Bessemer H–2–1½	3	1/4	1	1/4	V	11½	2¼	10	2¼	43	5/8	V	16⅜	2	¼	8	16⅜	2	¼	8	116	76	203	34	.....
Bessemer J2–2½	3	1/4	1¼	1/16	V	12	1½	5	1⅞	36¼	1¼	F	18⅜	2¼	¼	8	18⅜	2¼	¼	8	142⅜	92¼	229	34	.....
Bethlehem KN–1	3	1/4	....	1	V	8¾	2 1/16	8	2 1/16	35½	1¼	F	20½	1¾	1/4	2	20½	1¾	1/4	2	89¼	56¼	175	32 1/4	10½
Bethlehem GN–2	3	1/4	....	1¼	V	8½	2⅝	9½	2⅝	40⅞	1½	F	51	2½	1/4	1	37	2½	1/4	1	116¾	74	208¼	34½	9¼
Bethlehem L	3	1/4	....	1¾	V	8½	2⅝	9½	2⅝	40⅞	1½	F	51	2½	1/4	1	37	2½	1/4	1	134¾	81½	226¾	34½	8½
Betz J3–1	3	1/4	1	1¾	V	12	1½	17	1¾	33½	1½	F	11	3	1/4	4	11	3	1/4	4	126	90	215	34	10
Betz D3–2½	3	1/4	1¼	1/4	V	12	2½	12	1½	33½	1¼	F	12	3½	¼	4	12	3½	¼	4	Opt	.....	.....	34	.....
Biederman 20–1–1½	3	1/4	1 5/16	1¼	V	10	1¼	14	1¼	34	1⅛	F	43	2¼	1/4	4	43	2¼	1/4	4	96	72	204	32	10
Biederman 30–1¼–2	3	1/4	1 5/16	1¼	V	10	1¼	14	1¼	34	1⅛	F	12	3	¼	8	12	3	¼	8	120	84	228	32	10
Biederman 40–1½–2½	3	1/4	1 5/16	1¼	V	10	1¼	14	1¼	34	1⅛	F	12	3¼	¼	8	12	3¼	¼	8	144	96	252	32	10
Biederman 60–2½–3½	3	1/4	1 7/16	1½	V	12	1¾	14¾	1½	34	1⅛	F	13	3¼	¼	8	13	3¼	¼	8	168	108	276	32	10
Biederman 80–3½–5	3	1/4	1 7/16	1½	V	12	1¾	14¾	1½	34	1⅛	F	15½	3¾	¼	8	15½	3¾	¼	8	192	120	300	32	10
Brinton C–1½	3	1/4	1 1/16	5/8	....	11	1¼	13	1¼	33	11/16	F	39	2½	1/4	1	38	2½	1/4	1	118	.....	.....	.....	33
Brinton D–2½	3	1/4	1 1/16	5/8	....	11	1¼	13	1¼	33	11/16	F	13	3½	¼	2	13	3½	¼	2	135½	.....	.....	.....	33
Brockway S–12–1½	3	1/4	1	1¼	V	10½	2¼	5½	2¼	39	1¼	F	10	3¼	1/4	4	10	3¼	¼	4	118	72	118½	32	.....
Brockway K–11–2½	4	1/4	1¼	1½	V	6½	1¾	13	1¼	34	1¼	F	13	3½	¼	4	13	3½	¼	4	142	89½	123½	34	.....
Brockway R–12–3½	4	1/4	1¼	1½	V	9½	1¾	14	1¼	34	1½	F	15⅛	3¾	¼	4	15⅛	3¾	¼	4	176	102¾	175	36	.....
Brockway T–6–5	4	1/4	1½	1¾	V	13	2	22	2	40⅜	2	F	17¾	4	¼	4	17¾	4	¼	4	176	104½	176	36	.....
Casco A–1	4	1/4	1 1/16	1/4	V	12	1¾	14½	1¼	34¾	1½	F	48½	2½	1/4	1	48	2¼	1/4	1	104	61	192¼	34	10
Chevrolet Sup. Com. Chassis	3	1/4	1	1/4	V	.....	.....	.....	.....	.....	.....	V	.....	.....	.....	.....	.....	.....	.....	.....	Opt	Opt	146 1/4	44 1/4	9⅛
Chevrolet Utility Exp	3	1/4	1	1/4	V	.....	.....	.....	.....	.....	.....	V	.....	.....	.....	.....	.....	.....	.....	.....	Opt	Opt	156 11/16	37	10
Clinton 20–1¼	4	1/4	1	1/4	H	8	1¼	14	1¼	33	1½	F	11¾	3¼	¼	4	11¾	3¼	¼	4	112	73¾	207	34	10
Clinton 45–2	4	1/4	1¼	1/4	H	11	1¾	17½	1¼	36⅜	2	F	11¾	3¼	¼	4	11¾	3¼	¼	4	131	81	233	33¼	9
Clinton 65–3	4	1/4	1¼	1/4	H	11	2	19	1¼	38⅜	2	F	13 1/4	3½	¼	4	13 1/4	3½	¼	4	166	102	270½	33¼	9½
Clinton 90–90M–4	4	1/4	1¼	1/4	H	13¼	2	19	1¼	38⅜	2	F	15⅝	3¾	¼	4	15⅝	3¾	¼	4	163	105	270½	38	8⅝
Clinton 120L–120LM–5	4	1/4	1½	1/4	H	12	2	18	1½	41	2	F	18	4	¼	4	18	4	¼	4	206½	115	318	38	8
Clinton 120S–120SM–5–7	4	1/4	1½	1/4	H	12	2	18	1½	41	2	F	18	4	¼	4	18	4	¼	4	130½	91	242	38	10
Clydesdale 120B–5–5–6	3	1/4	1 11/16	1/4	V	9	2	18½	2	46½	2	F	18	4	¼	4	18	4	¼	4	131	.....	.....	38	.....
Clydesdale 90–3½–4½	3	1/4	1 5/16	1/4	V	9	1½	14	1½	42	1½	F	16	3¾	¼	4	16	3¾	¼	4	143	.....	.....	38	.....
Clydesdale 65EX 2½–3	3	1/4	1 5/16	1/4	V	9	1½	14	1½	42	1½	F	13¼	3½	¼	4	13¼	3½	¼	4	132	.....	.....	33¼	.....
Clydesdale 65X–2½–3	3	1/4	1 1/16	1/4	V	11	1½	11	1½	11	1½	F	13¼	3½	¼	4	13¼	3½	¼	4	137	.....	.....	33¼	.....
Clydesdale 42–1½–2	3	1/4	1 1/16	1/4	V	15	2	12	2	41	3/4	V	12	3¼	¼	4	12	3¼	¼	4	117	.....	.....	34	.....
Clydesdale 20–1–1½	3	1/4	1 1/16	1/4	V	15	2	12	2	41	3/4	V	11¼	3	¼	4	11¼	3	¼	4	95	.....	.....	34	.....
Clydesdale 18–¾–1¼	3	1/4	1 1/16	1/4	V	15	2	12	2	41	3/4	V	11¼	2½	¼	4	11¼	2½	¼	4	95	.....	.....	34	.....
Clydesdale 10–¾–1¼	3	1/4	1 1/16	1/4	V	9	2	9	2	41	3/4	V	11¼	2½	¼	4	11¼	2½	¼	4	109	.....	.....	34	.....
Clydesdale 10A–1–¾–1¼	3	1/4	1 1/16	1/4	V	9	2	9	2	41	3/4	V	11¼	2½	¼	4	11¼	2½	¼	4	109	.....	.....	34	.....
Columbia H–1½	3	1/4	1	....	V	10	1¼	12	1¼	39	1¼	F	23	1¾	¼	4	23	1¾	¼	4	Opt	Opt	Opt	32½	10
Columbia G–2½	3	1/4	1¼	....	V	10	1¼	12	1¼	39	1¼	F	26	2	¼	4	26	2	¼	4	Opt	Opt	Opt	32½	9
Columbia K–3	3	1/4	1¼	....	V	11	1½	13	1½	42	2	F	26	2	¼	4	26	2	¼	4	Opt	Opt	Opt	32½	9
Commerce 11–2000	3	1/4	1	1/4	V	10	2	10	2	44	3/4	V	50	2	1/4	2	48½	2	1/4	2	92⅝	53⅝	193	34	9
Commerce 14B–3000	4	1/4	1	1/16	V	10	2	9½	1½	39¾	¼	F	11 1/4	3¼	¼	4	11 1/4	3¼	¼	4	117	75	210	34	8¾

† 12 O. D. 7½ I. D.

Replacement Table—Continued

NAME, MODEL AND TONNAGE	ENGINE												BRAKE LINING								FRAME				
	Piston Rings		Carburetor			Upper Hose		Lower Hose		Fan Belt			Service				Emergency				Length			Width	
	No. per Cyl.	Width	Outlet Diameter	Inlet Diameter	Vertical or Horizontal	Length	Width	Length	Width	Length	Width	Type	Length	Width	Thickness	No. of Pieces	Length	Width	Thickness	No. of Pieces	Back of Driver's Seat	Driver's Seat to Center of Rear Axle	Over All	Over All	Clearance at Lowest Point of Chassis
Commerce 25B–5000	4	1/4	1 1/4	7/8	V	9 1/2	1 1/2	15 1/2	1 1/2	42	1 1/2	F	13	3 1/2	1/4	4	13	3 1/2	1/4	4	132	84	228 1/2	34	12 1/2
Concord E–1	4	1/4	1	7/8	H	7	1 7/8	9 1/2	1 3/8	33 1/2	2	F	12	3	1/4	4	12	3	1/4	4	.....	.....	.....	32 1/4	.....
Concord G–2	4	1/4	1	7/8	H	7	1 7/8	9 1/2	1 3/8	33 1/2	2	F	13 1/2	3 1/2	1/4	4	13 1/2	3 1/2	1/4	4	.....	.....	.....	32 1/4	.....
Concord H–2	4	1/4	1 1/4	7/8	H	7	1 7/8	9 1/2	1 3/8	33 1/2	2	F	12	3 1/4	1/4	4	12	3 1/4	1/4	4	.....	.....	.....	32 1/4	.....
Concord J–2 1/2	4	1/4	1 1/4	7/8	H	7	1 7/8	9 1/2	1 3/8	33 1/2	2	F	13 1/2	3 1/2	1/4	4	13 1/2	3 1/2	1/4	4	.....	.....	.....	32 1/4	.....
Concord JL–3	4	1/4	1 1/4	7/8	H	7	1 7/8	9 1/2	1 3/8	33 1/2	2	F	13 1/2	3 1/2	1/4	4	13 1/2	3 1/2	1/4	4	.....	.....	.....	32 1/4	.....
Corbitt S–3/4	3	7/8	1	1/2	H	8	2	14	2	38	1 1/4	F	16 3/4	1 3/4	7/8	4	16 3/4	1 3/4	7/8	4	103	59	196	34	11 1/4
Corbitt E–1	3	7/8	1	1/2	H	9	2	12	2	41	5/8	V	16 3/4	1 3/4	7/8	4	16 3/4	1 3/4	7/8	4	104	62	198	34	11 1/4
Corbitt D–1 1/2	3	7/8	1	1/2	V	11	1 1/4	15	1 1/4	46	1 1/2	F	18	2	1/4	4	18	2	1/4	4	110	72	206	34	10
Corbitt C–2	3	7/8	1 1/4	1/2	V	13	1 1/4	15	1 1/4	46	1 1/2	F	22 1/4	2 1/4	1/4	4	22 1/4	2 1/4	1/4	4	132	78	230	35	10 1/4
Corbitt B–2 1/2	3	7/8	1 1/4	1/2	V	13	1 1/4	15	1 1/4	46	1 1/2	F	22 1/4	2 1/4	1/4	4	22 1/4	2 1/4	1/4	4	136	78	232	35	10 1/4
Corbitt R–2 1/2–3	3	7/8	1 1/4	1/2	V	14	1 1/4	8	1 1/4	46	1 1/2	F	22 1/4	2 1/4	1/4	4	22 1/4	2 1/4	1/4	4	153	92	254	35	10 1/4
Corbitt A–3 1/2–4	3	7/8	1 1/4	1/2	V	14	1 1/4	8	1 1/4	46	1 1/2	F	21	4	1/4	2	21	3	1/4	2	168	106	266	35	9
Corbitt AA–5	3	7/8	1 1/2	1/2	V	13	2	14	2	36	2	F	68 3/4	3	1/4	2	68 3/4	3	1/4	2	168	106	268	38	10
Day-Elder G–1 1/2	4	7/8	1	1 1/4	V	.....	1 3/4	....	1 1/4	.....	1 1/2	F	11 3/4	3 1/4	1/4	4	11 3/4	3 1/4	1/4	4	105 1/4	61 1/4	191	35	10 1/4
Day-Elder H–2	4	7/8	1	1 1/4	V	.....	1 3/4	....	1 1/4	.....	1 1/2	F	11 3/4	3 1/4	1/4	4	11 3/4	3 1/4	1/4	4	132 1/4	77 1/4	218	34	9 3/4
Day-Elder I–2 1/2	4	1/4	1 1/4	1 1/2	V	.....	1 3/4	....	1 1/4	.....	2	F	13 7/8	3 1/2	1/4	4	13 7/8	3 1/2	1/4	4	123 1/2	77 1/2	216	35	10 1/4
Day-Elder J–3	4	1/4	1 1/4	1 1/2	V	.....	2	....	1 1/4	.....	2	F	13 7/8	3 1/2	1/4	4	13 7/8	3 1/2	1/4	4	115 3/4	77 1/4	214 1/2	35	10 1/4
Day-Elder K–4	4	1/4	1 1/4	1 1/2	V	.....	2	....	1 1/4	.....	2	F	15 5/8	3 3/4	1/4	4	15 5/8	3 3/4	1/4	4	121	86	220	37	8 11/16
Day-Elder L–5	4	1/4	1 1/2	1 3/4	V	.....	2	....	1 1/2	.....	2	F	17 11/16	4	1/4	4	17 11/16	4	1/4	4	148	88	253	37	10 7/8
Diamond T–75–1/4–1	3	3/4	3/4	1	V	8	1 1/2	10 1/2	1 1/4	33 1/4	1 1/4	F	22	2 1/2	1/4	2	46 5/8	2 1/4	7/8	1	90	57 1/2	182 1/2	34	.....
Diamond T–O4–1–1 1/4	3	7/8	1	1 1/4	V	9	1 1/4	6	1 1/4	35	2	F	48	2 1/2	7/8	2	33	2 1/2	7/8	2	100	.....	.....	34	.....
Diamond T–T–1 1/2	3	7/8	1	1 1/4	V	9	1 1/4	6	1 1/4	35	2	F	11 1/2	3 1/4	1/4	4	11 1/2	3 1/2	1/4	4	Opt	.....	.....	34	.....
Diamond T–U2–2 1/2	3	7/8	1 1/4	1 1/4	V	9	1 1/4	8	1 1/4	35	2	F	13 1/4	3 1/2	1/4	4	13 1/4	3 1/2	1/4	4	Opt	.....	.....	34	.....
Diamond TK–3 1/2	3	1/4	1 1/4	1 1/2	V	10	1 1/2	10	1 1/2	35	2	F	15 5/8	3 3/4	1/4	4	15 5/8	3 3/4	1/4	4	Opt	.....	.....	37	.....
Diamond T–S–5	3	1/4	1 1/2	1 3/4	V	9	2	21	2	40 3/16	2	F	18	4	1/4	4	17 11/16	4	1/4	4	Opt	.....	.....	37	.....
Dixon Model D	4	7/8	1	....	V	11	1 1/2	8	1 1/2	41	....	F	13	3 1/2	1/4	4	13	3 1/2	1/4	4	126	71	221 1/2	34 1/2	9 1/2
Dixon Model C	4	7/8	1 1/4	....	V	11	1 1/2	9	1 1/2	42	....	F	13	3 1/2	1/4	4	13	3 1/2	1/4	4	Opt	71	221 1/2	34 1/2	9 1/2
Dixon Model A	4	7/8	1 1/4	....	V	12	1 1/2	10	1 1/2	42	....	F	.....	.....	.....	.....	13	....	....	4	Opt	71	221 1/2	36	9 1/2
Dorris K–4–2 1/2	3	1/4	1 1/4	1 1/4	V	2 1/4	1 1/2	6 1/4	1 1/4	42 7/8	2	F	13 1/2	3 1/2	1/4	4	13 1/2	3 1/2	1/4	4	142 3/4	96 1/2	233 1/2	34	9
Dorris K–7–3 1/2	3	1/4	1 1/4	1 1/4	V	2 1/4	1 1/2	6 1/4	1 1/4	42 7/8	2	F	15 3/4	3 3/4	1/4	4	15 3/4	3 3/4	1/4	4	178 1/2	130 1/2	270 1/2	36	9
Double Drive TT–3	4	1/4	1 1/4	7/8	V	12	2	19	1 1/2	34	2	F	8 5/8	4	1/4	4	18	4	1/4	4	132	100	216	34	9 1/4
Duplex G	4	7/8	1	....	V	.....	1 3/4	....	1 1/4	.....	....	F	11	2 1/2	1/4	4	11	2 1/2	1/4	4	102	.....	.....	34	.....
Duplex GH	4	7/8	1	....	V	.....	1 3/4	....	1 1/4	.....	....	F	19	2	1/4	4	19	2	1/4	4	112	.....	.....	34	.....
Duplex A	3	7/8	1 1/4	....	V	.....	1 1/4	....	1 1/4	.....	....	F	20	2 1/4	1/4	4	20	2 1/4	1/4	4	121	.....	.....	34	.....
Duplex AC	3	7/8	1 1/4	....	V	.....	1 1/4	....	1 1/4	.....	....	F	26	2	1/4	4	26	2	1/4	4	140	.....	.....	34	.....
Duplex E	3	1/4	1 1/4	1 1/2	V	.....	2	....	1 1/4	.....	....	F	10	2 1/2	1/4	2	52	2 1/2	1/4	4	128	.....	.....	40	.....
Duplex FD	4	1/4	1 1/4	....	V	.....	2	....	1 1/4	.....	....	F	26 1/4	2	1/4	4	26 1/4	2	1/4	4	Opt	.....	.....	34	.....
Eagle 100–2	4	7/8	1 1/4	1	V	14	2	16	1 1/4	36	1 1/2	...	49 1/2	3	7/8	2	46	2	7/8	2	Opt	.....	.....	36	.....
Eagle 101–1 1/4	4	7/8	1 1/4	1	V	14	2	16	1 1/4	34	1 1/2	...	21	2 1/2	7/8	2	21	2 1/4	7/8	2	Opt	.....	.....	31	.....
Eagle 104–2–3	4	1/4	1 1/4	1 1/4	V	14	2	16	1 1/4	36	1 1/2	F	49 1/2	3	7/8	2	46	2	7/8	2	Opt	.....	.....	32	.....
Eagle 105–2–3 Ton	4	1/4	1 1/4	1 1/4	V	14	2	16	1 1/4	36	1 1/2	F	58	2 1/2	7/8	2	44	2 1/2	7/8	2	Opt	.....	.....	32	.....
Fageol 235–2	3	1/4	1 7/8	1 11/16	V	7	1 1/2	15 1/2	1 1/2	37 3/4	1 1/2	F	12 1/4	3 1/4	1/4	2	12 1/4	3 1/4	1/4	2	120	68 3/4	222 1/4	34	.....
Fageol 340–3	3	1/4	1 7/8	1 11/16	V	7	1 1/2	15 1/2	1 1/2	37 3/4	1 1/2	F	13 1/2	3 1/2	1/4	2	13 1/2	3 1/2	1/4	2	141	81	243 1/4	34	.....
Fageol 445–4	3	1/4	1 5/8	2	V	10	1 1/2	17	1 1/2	40 1/4	1 1/2	F	15 3/4	3 3/4	1/4	2	15 3/4	3 3/4	1/4	2	159 1/2	102	268 3/8	37 3/4	.....
Fageol 645–6	3	1/4	1 5/8	2	V	10	1 1/2	17	1 1/2	40 1/4	1 1/2	F	18 1/8	4	1/4	2	18 1/8	4	1/4	2	159 1/2	102	268 3/8	37 3/4	.....
Federal R–3–1	4	7/8	1	....	V	.....	1 1/2	....	1 1/2	.....	....	F	.....	.....	1/4	4	.....	....	1/4	4	110	.....	.....	.....	.....
Federal S–23–1 1/2	4	7/8	1	....	V	.....	1 1/2	....	1 1/2	.....	....	F	.....	.....	1/4	4	.....	....	1/4	4	118	.....	.....	.....	.....
Federal U–3–2 1/2	4	1/4	1 1/4	....	V	.....	1 1/4	....	1 1/2	.....	....	F	.....	.....	1/4	4	.....	....	1/4	4	134	.....	.....	.....	.....
Federal W–3–4	4	1/4	1 1/4	....	V	.....	1 1/2	....	1 1/2	.....	....	F	.....	.....	1/4	4	.....	....	1/4	4	154	.....	.....	.....	.....
Federal X2–5	4	1/4	1 1/2	....	V	.....	1 3/4	....	1 1/2	.....	....	F	.....	.....	1/4	4	.....	....	1/4	4	15.	.....	.....	.....	.....
Federal Light Duty	4	1/4	1 1/4	....	V	.....	1 1/4	....	1 1/2	.....	....	F	.....	.....	1/4	4	.....	....	1/4	4	86	.....	.....	.....	.....
Federal Heavy Duty	4	1/4	1 1/4	....	V	.....	1 1/4	....	1 1/2	.....	....	F	.....	.....	1/4	4	.....	....	1/4	4	99	.....	.....	.....	.....
Fisher Fast Freight	3	1/4	....	....	V	13	1 1/2	10	1 1/2	44 1/8	1 1/2	F	16	2 1/4	1/4	2	8	2	1/4	2	120	79	211	32	10 1/2
Ford T–1	3	1/4	1.06	1 7/8	H	4	2	2 3/4	1 3/4	26 7/8	1 1/8	R	23 3/8	1 1/8	7/8	1	12	1 5/8	7/8	2	60	.....	123	23	9 1/4
Front Drive FT–1 1/2	4	1/4	1	7/8	V	13 3/4	1 3/4	17	1 5/8	33	2	F	13	4	1/4	1	15	4	1/4	4	132	98	204	34	10 1/2
Fulton C–2	4	7/8	1 1/8	1 1/2	H	13	2	15	2	37 1/2	1 1/2	F	50 1/2	3	7/8	1	25	2 3/4	7/8	1	120	73	215 1/2	34	10
Fulton A–1	4	7/8	1 1/8	1 1/2	H	13	2	15	2	37 1/2	1 1/2	F	48	2 1/2	7/8	1	47 1/2	2 1/4	7/8	1	106	60	192	33 3/4	12
Fulton C–2	4	7/8	1 7/8	1 1/2	V	9 3/4	2	10	1 1/4	35 1/2	1 1/2	F	50 1/2	3	7/8	1	25	2 3/4	7/8	1	120	73	215 1/2	34	10
F. W. D. B–3	3	1/4	1 11/16	1 1/2	V	4	2	5	1 1/2	40	1 1/8	F	27	3 1/2	1/4	1	43	2 3/4	1/4	2	148	97	200	36	9 1/4
Garford 15–1	4	7/8	1	....	V	.....	.....	.....	.....	34	1 1/2	F	11	2 1/2	1/4	4	11	2 1/2	1/4	4	96	61	187	34	11
Garford 30–1 1/2	4	7/8	1 1/4	....	V	.....	.....	.....	.....	31 1/2	5/8	R	11 3/4	3 1/4	1/4	4	11 3/4	3 1/4	1/4	4	120	71	220	34	9
Garford 50–2 1/2	4	1/4	1 1/4	....	V	.....	.....	.....	.....	38 3/8	5/8	R	13 7/8	3 1/2	1/4	4	13 7/8	3 1/2	1/4	4	144	82	246	34	7
Garford 80–4	4	1/4	1 1/4	....	V	.....	.....	.....	.....	39	2 5/8	F	15 5/8	3 3/4	1/4	4	15 5/8	3 3/4	1/4	4	150	88 1/2	251	36	7
Garford 68D–5	4	1/4	1 1/2	....	V	.....	.....	.....	.....	39 1/4	5/8	R	17 3/4	4	1/4	4	17 3/4	4	1/4	4	150	88 1/2	251	36	10
Garford 151–A–5	4	1/4	1 1/2	....	V	.....	.....	.....	.....	39 1/4	5/8	R	10 1/2	4	3/8	2	21 5/8	4	1/4	4	150	88 1/2	251	36	11
Gary WLD–1	4	7/8	1	3/8	V	.....	2	....	.....	.....	1	F	11 1/2	3	1/4	4	11 1/2	3	1/4	4	97 3/8	.....	.....	34	11 1/2
Gary G15–1 1/2	4	1/4	1 1/4	3/8	V	13 1/2	2	12	1 1/4	32	1 1/4	F	12	3 1/4	1/4	4	12	3 1/4	1/4	4	120	72	214	34	10 1/4
Gary E25–2 1/2	4	1/4	1 1/4	3/8	V	10	2	12	1 1/4	36	2	F	13 1/2	3 1/2	1/4	4	13 1/2	3 1/2	1/4	4	120	76	214	34	10
Gary Y35–3 1/2	4	1/4	1 1/4	3/8	V	13	2	16 1/2	1 1/4	36	2	F	15 3/4	3 3/4	1/4	4	15 3/4	3 3/4	1/4	4	148	86	247	36 3/4	10 1/4
Gary B50–5	4	1/4	1 1/2	3/8	V	14	2	18	1 3/8	.....	2	F	18 1/4	4	1/4	4	18 1/4	4	1/4	4	168	99	275	39	10 1/4
G.M.C. K–16	4	7/8	1 1/4	1 5/8	V	8 3/4	1 1/2	8 7/8	1 1/2	33 1/2	11/16	F	49 5/8	2 1/8	7/8	2	47	2 5/8	7/8	2	89	57	183 1/2	34	8 3/4
G.M.C. K–41	4	1/4	1 1/4	1 5/8	V	10	1 3/4	9 1/2	1 3/4	35 3/4	11/16	V	13	3 1/2	1/4	4	13	3 1/2	1/4	4	Opt	Opt	Opt	33	9 1/2
G.M.C. K–71	4	1/4	1 1/4	1 5/8	V	11 3/4	1 3/4	9 1/2	1 3/4	35 3/4	11/16	V	15 1/8	3 3/4	1/4	4	15 1/8	3 3/4	1/4	4	Opt	Opt	Opt	38	10 1/4
G.M.C. K–101	4	1/4	1 1/4	1 5/8	V	11 3/4	1 3/4	9 1/2	1 3/4	35 3/4	11/16	V	17 3/4	4	1/4	4	17 3/4	4	1/4	4	Opt	Opt	Opt	38	9 1/4
Gotfredson 20–B–1	4	7/8	1	1	V	10 1/4	1 3/4	10 1/2	1 1/4	32 1/8	1 1/2	F	42 1/4	3 1/4	7/8	1	11	2	7/8	2	86 1/16	56 11/16	181 1/4	32 1/8	8 1/2
Gotfredson 30–1 1/2	4	7/8	1	1	V	10 1/4	1 3/4	10 1/2	1 1/4	32 1/8	1 1/2	F	11 3/4	3 1/4	7/8	4	.....	.....	.....	.....	118 1/16	69 11/16	213 3/4	32 1/8	.....
Gotfredson 41–2	4	1/4	1 1/4	1 1/4	V	8 1/2	1 3/4	4	1 1/4	36 1/4	2	F	11 3/4	3 1/4	7/8	4	.....	.....	.....	.....	119 1/16	67 11/16	216 5/8	32	.....
Gotfredson 60–3	4	1/4	1 1/4	1 1/4	V	11	2	16 1/4	1 1/4	41	1 3/4	F	11 3/4	5	7/8	2	13 1/2	3 1/4	1/4	4	127	81 1/16	218 1/2	33	.....
Gotfredson 80–4	4	1/4	1 1/4	1 1/4	V	14	2	18	1 1/4	43	2	F	11 3/4	7	7/8	2	15 1/2	3 3/4	1/4	4	147	88 3/4	242 5/8	35	8 11/16
Gotfredson 100–5	4	1/4	1 1/2	1 7/8	V	14	2	19	1 1/2	43	2	F	12 3/8	7	7/8	2	18 1/4	4	1/4	4	156	93	256 1/2	38	10 1/4
Graham Bros. BB–1	...	...	...	...	...	...	...	...	...	...	...	...	41 3/4	2	7/8	2	41 3/4	2	7/8	2	86 11/16	46 23/32	192 5/8	34	.....
Graham Bros. CB&MB–1 1/2	...	...	...	...	...	...	...	...	...	...	...	...	41 3/4	2 1/4	7/8	2	41 3/4	2 1/4	7/8	2	96 11/16	56 11/16	202 5/8	34	.....
Graham Bros. LB&FB–1 1/2	...	...	...	...	...	...	...	...	...	...	...	...	41 3/4	2 1/4	7/8	2	41 3/4	2 1/4	7/8	2	132 1/16	74 7/8	238 5/8	34	.....
Gramm-Bernstein 10 Sp'd–1	3	7/8	1	1 1/2	V	12	2 1/4	14 1/2	2 1/4	29	1	F	48	2	7/8	2	26	2	7/8	1	97	54	180	30 1/8	.....
Gramm-Bernstein 15–1 1/2–2	3	7/8	1	1 1/2	V	10 1/4	2	6	2	39	1 1/4	F	48 1/2	2	7/8	2	45 7/8	1 1/2	7/8	2	120	74	205 11/16	32	.....
Gramm-Bernstein 65–1 1/2–2	3	7/8	1	1 1/2	V	10 1/4	2	6	2	39	1 1/4	F	19 3/4	1 3/4	7/8	4	19 3/4	1 3/4	7/8	4	120	74	205 11/16	32	.....
Gramm-Bernstein 125–2 1/2	3	7/8	1 1/4	1 1/2	V	4 1/2	1 1/2	12	1 1/2	32	2	F	8	5	1/4	2	45	2	7/8	4	126	77 3/4	214	32	.....
Gramm-Bernstein 30–3	3	1/4	1 1/4	1 1/2	V	11	1 1/2	9	1 1/2	33 3/4	2	F	22 3/4	2 1/4	1/4	4	22 3/4	2 1/4	1/4	4	129 3/4	81 3/4	226 3/4	36	.....

Replacement Table—Continued

NAME, MODEL AND TONNAGE	ENGINE											BRAKE LINING							FRAME				
	Piston Rings		Carburetor			Upper Hose		Lower Hose		Fan Belt			Service				Emergency				Length			Width	
	No. per Cyl.	Width	Outlet Diameter	✱ Inlet Diameter	Vertical or Horizontal	Length	Width	Length	Width	Length	Width	Type	Length	Width	Thickness	No. of Pieces	Length	Width	Thickness	No. of Pieces	Back of Driver's Seat	Driver's Seat to Center of Rear Axle	Over All	Over All	Clearance at Lowest Point of Chassis
Gramm-Bernstein 75P–3½	3	¼	1¼	1½	V	11	1½	9	1½	33¾	2	F	22¾	2¼	¼	4	22¾	2¼	¼	4	129¾	.....	.....	36	.....
Gramm-Bernstein 40–4	3	¼	1¼	1½	V	11	1½	9	1½	33¾	2	F	28¾	2¾	¼	4	28¾	2¾	¼	4	144	87¾	240¾	36	.....
Gramm-Bernstein 50–5–6	3	¼	1½	1¾	V	23¼	2	13¾	1⅞	40¾	2	F	32 11/16	2¾	¼	4	32 11/16	2¾	¼	4	132	97	263½	36	.....
Grass Premier 40A	3	1/16	1	1½	V	12	2¼	14½	2¼	29	1	F	22½	1¼	1/16	4	48	2½	1/16	2	98	70	192	31	.....
Grass Premier 60A1½	4	11/64	1¼	1½	V	14	2½	16	2½	.....	.....	...	48½	2	1/16	2	47	1½	1/16	2	108	66	204	31	.....
Grass Premier 70A2½	4	11/64	1¼	1½	V	14	2½	16	2½	.....	.....	...	.....	.....	.....	...	.....	.....	.....	...	120	.....	214	31	.....
Grass Premier 90A3½	3	¼	1½	1¾	V	11	1½	11	1½	40	1½	F	15⅝	3¾	¼	4	15¾	3¾	¼	4	95	83	192	35	.....
G. W. W. Super	3	1/16	1¼	1¾	V	8	1¾	17½	1¼	37½	1¼	F	49	2½	¼	2	47	1½	1/32	2	89	72	192	32	11⅛
Harvey WOA–2	4	¼	1¼	2	V	11	2	14	1¼	35⅝	2	F	45	2	¼	2	45	2	¼	2	139	87	242¼	32	10
Harvey WFB–2½	4	¼	1¼	2	V	11	2	14	1¼	35⅝	2	F	50	2¼	¼	2	50	2¼	¼	2	139	87	242¼	32	10
Harvey WHB–3½	4	¼	1½	2	V	12	2	14	1¼	36½	2	F	20¾	4	¼	4	20¾	3	¼	4	151¾	85¾	258⅞	35	9
Harvey WFT–6	4	¼	1¼	2	V	11	2	14	1¼	36½	2	F	50	2¼	¼	2	50	2¼	¼	2	84	52	189 1/16	32	10
Harvey WHT–10	4	¼	1½	2	V	12	2	14	1¼	36½	2	F	20¾	4	¼	4	20¾	3	¼	4	86	52½	191⅛	35	9
Indiana 15–1½	3	¼	1¼	.....	.....	17	1¼	14	1¼	38½	1	F	19	2	1/16	4	19	2	1/16	4	114	67 1/16	213¼	34	10¼
Indiana 20–2	3	¼	1¼	.....	.....	6	1¼	13	1¼	26⅜	1½	F	22¼	2¼	¼	4	22¼	2¼	¼	4	126	74½	226½	33	10¼
Indiana 25–2½	3	¼	1¼	.....	.....	6	1¼	13	1¼	26⅜	1½	F	22¼	2¼	¼	4	22¼	2¼	¼	4	138	81	229 1/16	33	9¾
Indiana 35–3½	3	¼	1¼	.....	.....	6	1¼	13	1¼	26⅜	1½	F	20¾	...	¼	4	20¾	.....	¼	4	139	79¾	244¾	34½	8¾
Indiana 51–5	3	¼	1½	.....	.....	10	1½	17½	1½	40½	1¾	F	65 1/16	3	⅜	2	65 1/16	3	⅜	2	152¼	87	260	37½	10½
Inter'l S–2000 lbs.–Sp. Tr	3	¼	1¼	1¼	V	9¾	2¼	17¾	2¼	30¼	1	F	38	2	1/16	2	36	2	1/16	2	88	.....	.....	34	.....
International 33–3000 lbs	4	¼	1¼	1¾	V	6¼	2½	6½	2½	43½	1½	F	43¾	2¼	1/16	2	43¾	2¼	1/16	2	101¾	57¼	194¾	34	11⅛
International 43–4000 lbs	4	¼	1¼	1¾	V	6¾	2½	6½	2½	43½	1½	F	50 5/8	2¼	1/16	2	50 5/8	2¼	1/16	2	109	59¼	202	32¼	11½
International 63–6000	4	¼	1¼	1¾	V	9	2½	14½	2	46	1¾	..	50 5/8	2¼	1/16	2	50 5/8	2¼	1/16	2	116 1/16	67 5/8	213 7/8	34	11¾
International 103	4	¼	1¼	1¾	V	9	2½	6¾	3	51	1¾	F	.....	.....	.....	...	.....	.....	.....	...	146	87 5/8	244	34	12¾
Kelly-Springfield K70–1½–2	4	¼	1¼	1 11/16	V	12¼	1½	16	1½	41⅜	1½	F	17⅜	2⅜	1/16	4	17⅜	1⅞	1/16	4	132	81	230	34	10
Kelly-Springf'd K41–3½–5	4	¼	1¼	1 11/16	V	6¼	1⅝	24	1½	59 5/8	1	V	3 1/16	4½	¼	12	58	2½	1/16	2	144	87	248	36	9½
Kelly-Springf'd K61–5 to 7	4	¼	1¼	1 11/16	V	6¼	1⅝	24	1½	59 5/8	1	V	3 1/16	4½	¼	12	58	2½	1/16	2	144	87	248	36	9½
Kelly-Springfield K-75–2½	4	¼	1¼	1 11/16	V	7	1½	13	1½	41⅜	1½	F	3 1/16	4½	¼	12	21¼	2½	1/16	2	138	85	238	34	9½
Kelly-Springfield K-76–2½	4	¼	1¼	1 11/16	V	7	1½	13	1½	41⅜	1½	F	17⅜	2⅜	1/16	4	17⅜	1⅞	1/16	4	138	85	238	34	9⅝
Kenworth O–1	4	1/16	1	.....	H	12½	1¼	18½	1¼	31	1½	F	18	2	1/16	4	18	2	1/16	4	120	77½	207½	.....	.....
Kenworth M–2	4	¼	1¼	.....	H	12½	2	17	1½	37	2	F	22¼	2¼	¼	4	22¼	2¼	¼	4	122	74	218	.....	.....
Kenworth KS–3	4	¼	1¼	.....	H	11½	2	17	1½	36	2	F	22¼	2¼	¼	4	22¼	2¼	¼	4	136	83	233	.....	.....
Kenworth L–4	4	¼	1¼	.....	H	11½	2	17	1½	36	2	F	20¾	4	¼	4	20¾	3	¼	4	150	89	243	.....	.....
Kenworth RS–5	4	¼	1½	.....	H	10	2	15	1½	37½	1½	V	68¾	3	¼	2	68¾	3	¼	2	160	96	250	.....	.....
King Zeitler 1	4	1/16	1	1 1/16	V	11	1½	16	1½	40	1¼	F	11½	3¼	¼	4	11½	3¼	¼	4	Opt	Opt	Opt	32	10¼
King Zeitler 1½	4	1/16	1	1 1/16	V	11	1½	16	1½	40	1¼	F	12¼	3¼	¼	4	12¼	3¼	¼	4	Opt	Opt	Opt	32	10¾
King Zeitler 2½	4	¼	1¼	1 11/16	V	12	1½	16	1½	41	1½	F	13½	3½	¼	4	13½	3½	¼	4	Opt	Opt	Opt	32	10
King Zeitler 3½	4	¼	1¼	1 11/16	V	12	1½	16	1½	42	1½	F	16	3¾	¼	4	16	3¾	¼	4	Opt	Opt	Opt	36	10¼
King Zeitler 5	4	¼	1½	1 11/16	V	14	2	22	2	42	1½	F	18	4	¼	4	18	4	¼	4	Opt	Opt	Opt	36	10¼
Kissel 1 Ton	3	1/16	.....	1¼	.....	12¼	1¾	10	1½	46¾	2	F	11	3	¼	4	12	3¼	¼	4	102	58½	201	34	.....
Kissel Utility 1½	3	1/16	.....	1¼	.....	12¼	1¾	10	1½	46¾	2	F	19	2	1/16	4	12	3¼	¼	4	120	70½	219	34	.....
Kissel Freighter 2	3	1/16	.....	1¼	.....	12¼	1¾	10	1½	49	2	F	14	3½	¼	4	14	3½	¼	4	144	80	243	34	.....
Kissel Heavy Duty 4	3	1/16	.....	1¼	.....	13¾	1¾	10	1½	52¼	2	F	56	2½	1/16	2	56	2½	1/16	2	156	94¾	251¼	36	.....
Kleiber 1½	4	¼	1¼	.....	V	11	1½	13	1½	45½	1⅜	F	13	3¼	¼	4	13	3¼	¼	4	114	.....	.....	34	.....
Kleiber 2½	4	¼	1½	.....	V	12	1½	14	1½	47½	1⅜	F	14	3½	¼	4	14	3½	¼	4	150	.....	.....	34	.....
Kleiber 3½	4	¼	1¾	.....	V	13	1½	14½	1½	47½	1⅜	F	16	3¾	¼	4	16	3¾	¼	4	156	.....	.....	38	.....
Kleiber 5	4	¼	1¾	.....	V	14	1½	15	1½	48½	1¾	F	18	4	¼	4	18	4	¼	4	171	.....	.....	38	.....
Krebs J–24	4	¼	1	1/16	V	8	1½	17	1½	42	1½	F	11¼	2½	¼	4	11¼	2½	¼	4	119	64	214	33	10¾
Krebs 50	4	¼	1¼	1/16	V	10	1½	17	1½	42	1½	F	13½	3½	¼	4	13½	3½	¼	4	122	60	222	33	9
Krebs K–45	4	¼	1¼	1/16	V	10	1½	17	1½	42	1½	F	12	3¼	¼	4	12	3¼	¼	4	122	60	222	33	10
Krebs 80	4	¼	1¼	1/16	V	11	1½	17	1½	44	2	F	13½	3½	¼	4	13½	3½	¼	4	131	80	234	33¼	9
Krebs L–75	4	¼	1¼	1/16	V	11	1½	17	1½	44	2	F	13½	3½	¼	4	13½	3½	¼	4	131	80	234	33¼	9
Krebs 100	4	¼	1¼	1/16	V	11	1½	17	1½	44	2	F	16	3¾	¼	4	16	3¾	¼	4	131	87	234	38	10
Krebs L–110	4	¼	1¼	1/16	V	11	1½	17	1½	44	2	F	16	3¾	¼	4	16	3¾	¼	4	131	87	234	38	10
Krebs 130	4	¼	1½	1/16	V	11	1½	17	1½	44	2	F	16	3¾	¼	4	16	3¾	¼	4	126	92	234	38	10
Krebs B–120	4	¼	1½	1/16	V	11	1½	17	1½	44	2	F	16	3¾	¼	4	16	3¾	¼	4	126	92	234	38	10
Lange F–3½	4	¼	1 1/16	1 11/16	V	4	1½	14	1½	45	1½	F	13¾	3¾	¼	4	13¾	3¾	¼	4	159	104	251½	37	9½
Lange E–2½	4	¼	1 1/16	1⅛	V	7	1½	14	1½	42	1½	F	11½	3½	¼	4	11½	3½	¼	4	139	85	229	33	10
Lange G–1½	4	1/16	1 3/16	1 1/16	V	5½	1½	13	1½	40	1¼	F	12	3¼	¼	4	12	3¼	¼	4	114	73	205	33	9¾
Larrabee X2–1–1¼ Ton	3	1/16	1¼	1¾	V	6	1¼	14	1¼	34	1¼	F	50	2	1/16	2	50	2	1/16	2	108	59	205	34	11
Larrabee J4–1½–2¼ Ton	4	1/16	1	1½	V	6½	1¼	10	1½	41	1¼	F	19	2	1/16	4	19	2	1/16	4	108	67½	199	34	10½
Larrabee K5–2½–3½ Ton	4	¼	1¼	1¾	V	6	1½	11	1½	45½	1½	F	21	2¼	¼	4	21	2¼	¼	4	Opt	Opt	Opt	34	9¾
Larrabee L4–3½–4½ Ton	4	¼	1¼	1¾	V	6	1½	11	1½	45½	1½	F	21	4	¼	4	21	3	¼	4	Opt	Opt	Opt	36	9
LeMoon GP–1	4	¼	1¼	1/16	V	12	1⅜	10	1⅜	44	1½	F	11½	2½	1/16	2	11½	2½	1/16	2	65	.....	.....	.....	11
LeMoon GP–1½	4	¼	1¼	1/16	V	12	1⅜	10	1⅜	44	1½	F	11½	3	1/16	2	11½	3	1/16	2	Opt	.....	.....	.....	11
LeMoon GP–2	4	¼	1¼	1/16	V	12	1⅜	10	1⅜	44	1½	F	12	3¼	¼	2	12	3¼	¼	2	Opt	.....	.....	.....	11
LeMoon G–3	4	¼	1¼	1/16	V	12	1⅜	10	1⅜	44	1½	F	13½	3½	¼	2	13½	3½	¼	2	Opt	.....	.....	.....	11
LeMoon G–4	4	¼	1¼	1/16	V	12	1⅜	10	1⅜	44	1½	F	16½	3¾	¼	2	16½	3¾	¼	2	Opt	.....	.....	.....	11
LeMoon G–5	4	¼	1¼	1/16	V	12	1⅜	10	1⅜	44	1½	F	18	4	¼	2	18	4	¼	2	Opt	.....	.....	.....	11
Maccar EX–1¼	3	1/16	1¼	3/16	V	4½	1½	15	1½	35½	1¼	F	50	2	1/16	2	48	2	1/16	2	101 5/16	68	192½	37	9½
Maccar V–1, 2	4	¼	1¼	3/8	V	4	1¾	19	1½	35	2	F	11 5/16	3¼	¼	4	11 5/16	3¼	¼	4	138¾	79¾	243⅜	34	10½
Maccar H–1, 3	4	¼	1¼	3/8	V	4	1¾	19	1½	35	2	F	13 1/16	3½	¼	4	13 1/16	3½	¼	4	138¾	79¾	243⅜	34	9½
Maccar M–2, 4	4	¼	1¼	3/8	V	4	1¾	19	1½	35	2	F	14¾	3¾	¼	4	14¾	3¾	¼	4	156¾	91¾	263½	34	8½
Maccar G–1 ,5	4	¼	1½	3/8	V	8	1¾	16½	1¾	40¾	2	F	18	4	¼	4	18	4	¼	4	163⅞	99⅞	278	37½	10
Mack AB–1½,2,2½–T-Ch	3	1/16	1¼	1⅜	V	7½	1¼	5⅜	1¼	36⅝	1¼	F	11 5/8	4	¼	2	16½	2½	¼	4	Opt	.....	.....	33¼	.....
Mack Dual R'd'n–1½,2,2½	3	1/16	1¼	1⅜	V	7½	1¼	5⅜	1¼	36⅝	1¼	F	18¼	3½	¼	4	12	6	¼	2	Opt	.....	.....	33⅛	.....
Mack AB–Tractor–5	3	1/16	1¼	1⅜	V	7½	1¼	5⅜	1¼	36⅝	1¼	F	11 5/8	4	¼	2	16½	2½	¼	4	Opt	.....	.....	33¼	.....
Mack AC–3½,5,6½,7½	3	1/16	1½	1⅝	V	5	1¾	3¼	2	.....	.....	...	16½	3	¼	4	20½	3½	¼	4	Opt	.....	.....	37½	.....
Mack AC–Trac.–7,10,13,15	3	1/16	1½	1⅝	V	5	1¾	3¼	2	.....	.....	...	16½	3	¼	4	20½	3½	¼	4	Opt	.....	.....	37½	.....
Mason Road King	3	¼	1¼	.....	V	11 5/8	2	14⅛	1½	.....	1½	F	42 1/16	2¾	1/16	1	40⅜	2¾	1/16	1	130 1/16	76 11/16	212 11/16	30	10
Master 22–1½	4	1/16	1¼	1 11/16	V	13½	2	12½	1¼	30½	1	F	12	3¼	¼	2	12	3¼	¼	2	Opt	.....	.....	34⅛	.....
Master 41–2½	4	¼	1¼	1 1/16	V	13½	2	12½	1¼	31	1¼	F	13¼	3½	¼	2	13¼	3½	¼	2	117⅜	.....	.....	34	.....
Master 51–3½	4	¼	1½	1 1/16	V	13½	2	15	1¼	35	2	F	16	3¾	¼	2	16	3¾	¼	2	147¾	.....	.....	36¾	.....
Master 61–5	4	¼	1½	1 1/16	V	13½	2	15	1¼	35	2	F	13¼	4	¼	2	18	4	¼	2	162⅞	.....	.....	36¾	.....
Master 64–5–6	4	¼	1½	1 1/16	V	13½	2	15	1½	37	2	F	13¼	4	¼	2	18	4	¼	2	162⅞	.....	.....	39	.....
Menominee Hurryton –1	3	¼	1¼	1¾	V	6	1½	12	1¼	40	1¼	F	48	2½	1/16	2	11	2½	1/16	2	102 1/16	.....	197	33	10½
Menominee H–1½	3	¼	1¼	1¾	V	6	1½	12	1¼	40	1¼	F	47 1/16	2½	1/16	2	.....	.....	.....	...	122	.....	216	32	10⅜
Menominee D–2	3	¼	1¼	1¾	V	3	1⅜	3	1½	37¾	2	F	13½	3½	1/16	8	33¼	2½	1/16	2	146	.....	224	32	10⅜
Menominee HT–1¼	3	¼	1¾	1¾	V	6	1½	12	1¼	33¾	1¼	F	47 1/16	2½	1/16	2	33¼	2½	1/16	2	102¾	.....	192	32	10⅜

Replacement Table—Continued

NAME, MODEL AND TONNAGE	ENGINE												BRAKE LINING								FRAME				
	Piston Rings		Carburetor			Upper Hose		Lower Hose		Fan Belt			Service				Emergency				Length			Width	
	No. per Cyl.	Width	Outlet Diameter	Inlet Diameter	Vertical or Horizontal	Length	Width	Length	Width	Length	Width	Type	Length	Width	Thickness	No. of Pieces	Length	Width	Thickness	No. of Pieces	Back of Driver's Seat	Driver's Seat to Center of Rear Axle	Over All	Over All	Clearance at Lowest Point of Chassis
Moreland RR–1	3	1/4	1	1 1/4	V	8	1 1/2	11 1/4	1 1/2	34	1 3/4	F	49	2 1/2	1/4	2	46	2 1/2	1/4	2	108	56 1/4	208 3/8	34	.....
Moreland BX–1 1/2	3	1/4	1	1 1/4	V	8	1 1/2	11 1/4	1 1/2	34	1 3/4	F	12	3 1/4	1/4	4	12	3 1/4	1/4	4	108	56 1/4	208 3/8	34	.....
Moreland EX–2	3	1/4	1 1/4	1 1/2	V	9	1 1/2	14	1 1/2	42	1 3/4	F	12	3 1/4	1/4	4	12	3 1/4	1/4	4	132	79 1/2	226 1/4	34	.....
Moreland AX–3	3	1/4	1 1/4	1 1/2	V	9	1 1/2	13	1 1/2	42	1 3/4	F	13 1/2	3 1/2	1/4	4	13 1/2	3 1/2	1/4	4	174	101 1/2	253	34	.....
Moreland RX–5	4	1/4	1 1/2	1 3/4	V	8	1 1/2	14 1/2	1 1/2	42	2	F	15 1/2	3 3/4	1/4	4	15 1/2	3 3/4	1/4	4	192	115 1/4	271	38	.....
Moreland RC–Bus	3	1/4	1	1 1/4	H	8	1 1/2	11 1/4	1 1/2	24	1 1/2	F	49	2 1/2	1/4	2	46	2 1/2	1/4	2	156	100	256	34	7
Moreland EC–Bus	3	1/4	1 1/4	1 1/2	H	9	1 1/2	13	1 1/2	42	1 1/2	F	13 1/2	3 1/2	1/4	4	13 1/2	3 1/2	1/4	4	152	102	254	34	8
Moreland AC–Bus	3	1/4	1 1/4	1 1/2	H	9	1 1/2	13	1 1/2	42	1 1/2	F	15 1/2	3 3/4	1/4	4	15 1/2	3 3/4	1/4	4	171	114 1/4	271	44	7
Nash 2018–1–1 1/2	4	1/4	1 1/4	1 1/4	....	3	1 1/2	7 3/4	1 1/4	36	1	F	49 1/8	2	1/4	2	20 1/8	2 1/2	1/4	1	104 1/2	61	193	30 1/2	9 3/4
Nash 3018–2–2 1/2	4	1/4	1 1/4	1 1/4	....	3	1 1/2	....	....	44	1	F	50 5/8	3	1/4	2	20 1/8	2 1/2	1/4	1	118 1/4	65	207	31 5/8	9 3/4
Nash 4017–2–2 1/2	3	1/4	1 1/4	1 1/4	....	7	1 1/2	....	....	44	2	F	49 1/2	2 1/2	1/4	4	25 1/16	2	1/4	1	117 1/8	85 1/2	202 1/2	38 1/8	14 3/4
National M	4	1/4	1	1/4	V	16	2 1/2	15	2 1/2	40	1 1/2	F	12	3 1/4	1/4	4	12	3 1/4	1/4	4	116	65	208	34	9 1/2
National T	3	1/4	1 1/4	1/4	V	12	1 1/2	18	1 1/2	40	1 3/4	F	13 1/2	3 1/2	1/4	4	13 1/2	3 1/2	1/4	4	123 1/2	80 1/2	220	34	9 1/2
National NB–3 1/2	3	1/4	1 1/2	1/4	V	10	1 1/2	17	1 1/2	40	1 3/4	F	16	3 3/4	1/4	4	16	3 3/4	1/4	4	142	91	243	36	8 1/4
Netco DK–2	3	1/4	1 1/4	1 1/8	V	12	1 1/2	16	1 1/4	40 1/16	1 1/2	F	13 1/4	3 1/2	1/4	4	13 1/4	3 1/2	1/4	4	142	94	234 1/2	34 1/4	9
Netco HL–2 1/2–3	3	1/4	1 1/2	1 1/8	V	13	1 1/2	16	1 1/4	41 1/4	1 1/2	F	13 1/4	3 1/2	1/4	4	13 1/4	3 1/2	1/4	4	139 1/2	93 1/2	234 1/2	34 1/4	9
Noble A–76–1 1/2	4	1/4	1	1 1/8	V	10	1 3/4	12 1/2	1 1/4	33 1/2	1 1/2	F	47	2 1/2	1/4	2	45	2 1/2	1/4	2	100	58	191	34	.....
Noble A–21–1 1/2	4	1/4	1	1 1/8	....	10	1 3/4	12 1/2	1 1/4	33 1/2	1 1/2	F	19	2	1/4	2	19	2	1/4	2	102	74	203	34	.....
Noble B–31–2	4	1/4	1	1 1/8	....	7	1 7/8	16 1/2	1 1/4	34 1/4	1 7/8	F	43	2	1/4	2	43	2	1/4	2	126	80	221	34	.....
Noble D–52–3	4	1/4	1 1/4	1 1/8	....	9	2	12	1 1/4	34 1/4	1 7/8	F	21	2 1/4	1/4	4	21	2 1/4	1/4	4	.....	101	207	34	.....
Noble E–72–4	4	1/4	1 1/4	1 1/8	....	14 1/2	2	16	1 1/4	34 1/4	1 7/8	F	57	2 1/2	1/4	2	57	2 1/2	1/4	2	.....	114	218	36	.....
Northway B–2–2	3	1/4	1 1/8	1 3/4	V	5 1/4	2 1/4	13 7/8	1 1/4	46 11/32	5/8	V	50 1/2	2 1/4	1/4	2	50 1/2	2 1/4	1/4	2	133	62	223 1/2	33	9
Northway B–3–3 1/2	3	1/4	1 1/8	1 3/4	V	5 1/4	2 1/4	13 7/8	1 1/4	46 11/32	5/8	V	54	2 1/2	1/4	2	54	2 1/2	1/4	2	173	92	253 1/4	34 5/8	11
Ogden A–2–1	3	1/4	1	1	H	12	2	6	2	44	3/4	V	11	2 1/2	1/4	4	11	2 1/2	1/4	4	108	56	186	33 1/4	10 1/2
Ogden D–1 1/2	3	1/4	1	1	V	13	2	12	2	44	3/4	V	10 11/32	3	1/4	4	10 11/32	3	1/4	4	120	.....	.....	33 1/4	....
Ogden E–2 1/2	3	1/4	1 1/4	2	V	10	1 1/8	14	1 1/8	30	1 1/4	F	52	2 1/4	1/4	1	52	2 1/4	1/4	1	144	.....	.....	33 1/4	....
Ogden F–3 1/2	3	1/4	1 1/4	2	V	11	1/2	16	1 1/2	36	1 1/2	F	15 5/8	3 3/4	1/4	4	3/8	3 3/4	1/4	4	168	.....	.....	37	.....
Ogden G–5	3	1/4	1 1/2	3	V	9	2	18	2	40	2	F	11	6	1/4	2	25	4	1/4	4	168	.....	.....	37	.....
Oshkosh AW–2	3	1/4	1 1/4	1 1/2	H	16	2	17	2	33 1/4	1 1/4	F	23 3/8	3 1/2	1/4	1	43 1/2	2 1/2	1/4	2	108	75 5/8	189	34	.....
Oshkosh AAW–2	3	1/4	1 1/4	1 1/2	H	16	2	17	2	33 1/4	1 1/4	F	23 5/8	3 1/2	1/4	1	43 1/2	2 1/2	1/4	2	144	110 5/8	224	34	.....
Oshkosh BO–2 1/2	4	1/4	1 1/4	1 3/4	V	9 3/4	1 1/2	12	1 1/2	36 1/2	2	F	23 5/8	4 1/2	3/8	1	43 1/2	2 1/2	1/4	2	125	85 1/2	211	34	.....
Oshkosh BBO2 1/2	4	1/4	1 1/4	1 3/4	V	9 3/4	1 1/2	12	1 1/2	36 1/2	2	F	23 5/8	4 1/2	3/8	1	43 1/2	2 1/2	1/4	2	144	104 1/2	230	34	.....
Overland 1/2	4	1/4	1 1/4	1 3/8	H	.....	.....	.....	.....	.....	.....	...	.....	.....	.....	...	.....	.....	.....	...	31 1/4	29	127 1/4	26	9 1/2
Patriot 7R–1	3	1/4	1 1/8	3/8	H	8	2	9	2	39	1/4	F	40 1/2	1 3/4	1/4	1	40 1/2	1 3/4	1/4	1	93	56	184	33 1/4	11 3/4
Patriot 9–L–2	3	1/4	1 1/8	3/8	V	6	1 1/4	8	1 1/2	37	1 3/4	F	40 1/2	1 3/4	1/4	1	40 1/2	1 3/4	1/4	1	113	65	207	34	10
Patriot 11W–3	3	1/4	1 1/4	3/8	V	11	1 1/2	10	2	39	2	F	58	2 1/2	1/4	1	43	2 1/2	1/4	1	150	82	246	34	10
Penn 1	4	1/4	1 1/8	1 3/8	H	12	2 1/8	7 1/4	2 1/8	33 1/4	7/8	F	40	1 1/2	1/4	4	40	1 1/2	1/4	4	89	52	178	34	9 1/2
Penn 2	3	1/4	1	....	V	8	2 1/8	8	2 1/8	38	1	F	50 1/2	3	1/4	1	46 3/4	2	1/4	1	124	80	214	38	12
Pierce Arrow XA–2	3	1/4	1 1/16	1 5/8	V	16 3/8	2 3/8	14 1/4	2 1/8	43 1/2	1 1/2	F	15 1/8	3 3/4	1/4	4	15 1/8	3 3/4	1/4	4	125 1/8	70 11/32	225	34 1/8	8 1/2
Pierce Arrow XB–3	3	1/4	1 1/16	1 5/8	V	16 3/8	2 3/8	14 1/4	2 1/8	43 1/2	1 1/2	F	15 1/8	3 3/4	1/4	4	15 1/8	3 3/4	1/4	4	125 1/8	70 11/32	225	34 1/8	8 1/2
Pierce Arrow WC–4	3	1/4	1 11/32	1 7/8	V	11	2 3/8	15 1/2	2 1/8	43 1/2	1 1/2	F	9 11/32	6	1/4	2	18	4 3/4	11/32	4	133 1/4	78 3/4	237	38 1/8	7 11/32
Pierce Arrow RD–5–6	3	1/4	1 11/32	1 7/8	V	11	2 3/8	15 1/2	2 1/8	43 1/2	1 1/2	F	9 11/32	6	1/4	2	20 7/8	4 3/4	11/32	4	139 1/4	84 3/4	243	38 1/8	8 1/4
Pierce Arrow RF–7 1/2	3	1/4	1 11/32	1 7/8	V	11	2 3/8	15 1/2	2 1/8	43 1/2	1 1/2	F	9 11/32	6	1/4	2	20 7/8	4 3/4	11/32	4	139 1/4	84 3/4	243	38 1/8	8 1/4
Pierce Arrow XB–TT	3	1/4	1 1/16	1 5/8	V	16 3/8	2 3/8	14 1/4	2 1/8	43 1/2	1 1/2	F	15 1/8	3 3/4	1/4	4	15 1/8	3 3/4	1/4	4	77 1/8	48 11/32	172 1/8	34 1/8	8 1/2
Pierce Arrow RD–TT	3	1/4	1 11/32	1 7/8	V	11	2 3/8	15 1/2	2 1/8	43 1/2	1 1/2	F	9 11/32	6	1/4	2	18	4 3/4	11/32	4	77 1/4	48 3/4	173 5/8	38 1/8	7 11/32
Pierce Arrow RF–TT	3	1/4	1 11/32	1 7/8	V	11	2 3/8	15 1/2	2 1/8	43 1/2	1 1/2	F	9 11/32	6	1/4	2	20 7/8	4 3/4	11/32	4	77 1/4	48 3/4	173 5/8	38 1/2	8 1/4
Rainier R31–3/4	3	1/4	1	1/4	V	9	2	6	2	43 3/4	5/8	V	11	2 1/2	1/4	4	11	2 1/2	1/4	4	86 1/2	50 3/8	181	34	11 3/4
Rainier R29–1	3	1/4	1	1/4	V	9	2	6	2	43 3/4	5/8	V	11	2 1/2	1/4	4	11	2 1/2	1/4	4	96 1/2	57 5/8	190 1/4	34	10 1/2
Rainier R36–1 1/2	4	1/4	1	1/4	V	8	1 1/2	14	1 1/2	40	1 1/4	F	11 3/4	3 1/4	1/4	4	11	3 1/4	1/4	4	111	72 1/4	206 1/2	34	9 3/4
Rainier R28–2–2 1/2	4	1/4	1 1/4	1/4	V	9 1/2	1 1/2	14	1 1/2	42	1 1/4	F	20	2 1/4	1/4	4	20	2 1/4	1/4	4	124 3/4	80 1/2	225	33	9 5/8
Rainier R20–2 1/2–3	4	1/4	1 1/4	1/4	V	9 1/2	1 1/2	14	1 1/2	42	1 1/4	F	13	3 1/2	1/4	4	13	3 1/2	1/4	4	137 1/2	85 1/2	241 3/4	33	10
Rainier R25–3 1/2–5	4	1/4	1 1/4	1/4	V	9 1/2	1 1/2	14	1 1/2	42	1 1/4	F	15 1/2	3 3/4	1/4	4	15 1/2	3 3/4	1/4	4	157 1/2	91	263 7/8	37	8 3/4
Rainier R27–6–7	4	1/4	1 1/2	1/4	V	9 1/2	1 1/2	14	1 1/2	42	1 3/4	F	18	4	1/4	4	18	4	1/4	4	154 1/2	88	263 7/8	37	9 1/2
Reo F–2500 lbs	3	1/16	1	1 1/2	V	5 1/2	1	5 1/2	1	39 1/2	7/8	F	45 7/8	3	1/4	2	40 1/16	3	1/4	2	81 1/16	55 3/4	171	30	9 3/4
Rowe CDW–2 1/2	3	1/4	1 1/4	1/4	V	18	1 3/4	16	1 1/2	37	2	...	20	2 1/4	1/4	4	20	2 1/4	1/4	4	139 1/2	81 1/4	224 3/4	33	9 3/4
Rowe GSW–3	3	1/4	1 1/4	1/4	V	18	1 3/4	16	1 1/2	37	2	...	20	2 1/4	1/4	4	20	2 1/4	1/4	4	139 1/2	81 1/4	224 3/4	33	9 3/4
Rowe HW–4	3	1/4	1 1/4	1/4	V	18	1 3/4	16	1 1/2	37	2	...	22	4	1/4	4	22	3	1/4	4	163 1/2	99	249 1/2	36	9
Rowe FW–5	3	1/4	1 3/8	1/4	V	11	1 3/4	17	1 3/4	43	2	...	68	3	1/4	2	60	3	1/4	2	175 1/2	107 3/4	265	38 1/2	10 1/2
Ruggles 15–3/4	3	1/4	1	1/4	V	12 1/2	2	20	2	34 3/4	1 1/4	F	43 7/8	2	1/4	2	39	1 3/4	1/4	2	128	97 1/2	170	38 1/2	9 1/4
Ruggles 20R–1 1/4	3	1/4	1 1/4	1/4	V	7 1/2	2	13 1/2	1 1/4	35	1 1/2	F	48	2 1/2	1/4	2	46 5/8	2 1/4	1/4	2	96 5/8	55 3/8	186 3/4	34	11
Ruggles 20AR–1 1/4	3	1/4	1 1/4	1/4	V	7 1/2	2	13 1/2	1 1/4	35	1 1/2	F	48	2 1/2	1/4	2	46 5/8	2 1/4	1/4	2	104 1/2	65	194 3/4	34	11
Ruggles 40–2	3	1/4	1 1/4	1/4	V	7 1/2	2	13 1/2	1 1/4	35	1 1/2	F	47 1/2	2 1/2	1/4	2	33 1/4	2 1/2	1/4	2	134 1/4	75 1/2	224	34	8 1/4
Ruggles 40H–2 1/2	3	1/4	1 1/4	1/4	V	7 1/2	2	13 1/2	1 1/4	35	1 1/2	F	58	2 1/2	1/4	2	44	2 1/2	1/4	2	134 1/4	75 1/2	224	34	9 1/4
Rumely A–1 1/2–2	4	1/4	1 1/4	1/4	V	10 1/2	1 3/4	10 1/2	1 1/4	37	2	F	19 1/2	2	1/4	4	19 1/2	2	1/4	4	122	72	213	34	11
Sandow G–1	3	1/4	1 1/4	1	H	9	2	7	2	38 3/4	3/4	V	22 1/4	2 1/4	1/4	4	22 1/4	2 1/4	1/4	4	96	.....	205	34	10 1/2
Sandow C–G–1 1/2	3	1/4	1 1/4	1	H	9	2	7	2	38 3/4	3/4	V	22 1/4	2 1/4	1/4	4	22 1/4	2 1/4	1/4	4	120	.....	.....	34	10 1/2
Sandow J–2 1/2	3	1/4	1 1/2	1 1/4	V	7	1 1/4	13	1 1/4	39	7/8	F	11 3/8	3 1/2	1/4	4	11 3/8	3 1/2	1/4	4	Opt	.....	.....	32	10 1/2
Sandow M–3 1/2	3	1/4	1 3/4	1 1/4	V	9	1 1/2	13	1 1/4	40	7/8	F	13 1/2	4	1/4	4	11 3/4	3 1/2	1/4	4	Opt	.....	.....	37	11
Sandow L–5	...	...	...	...	...	...	...	...	...	...	...	...	13 1/2	4	1/4	4	11 3/4	3 1/2	1/4	4	Opt	.....	.....	37	11
Sanford W15–1 1/2	3	1/4	1	1	H	9	2 1/4	11	1 1/2	40	5/8	V	22 1/4	2 1/4	1/4	4	22 1/4	2 1/4	1/4	4	120	71 3/4	205 3/4	32	11
Sanford 25–2 1/2	3	1/4	1 1/4	1 1/4	V	8	1 1/2	11	1 1/2	46	1 1/2	F	22 1/4	2 1/4	1/4	4	22 1/4	2 1/4	1/4	4	144	109 1/2	238	35	9 3/4
Sanford 35–3 1/2	3	1/4	1 1/4	1 1/4	V	9	1 1/2	11	1 1/2	46	1 1/2	F	55 3/4	4	1/4	4	55 3/4	2 1/2	1/4	4	144	97 1/2	244	35	8 11/32
Sanford 50–5	3	1/4	1 1/4	1 1/4	V	9	1 1/2	11	1 1/2	46	1 1/2	F	65	2	1/4	2	65	2	1/4	2	144	97 1/2	244	35	10 1/2
Saurer 5AD–6 1/2	4	1/4	1 1/2	1 3/8	V	6	1 3/8	10	1 3/8	47 1/2	1 1/2	F	...	...	...	...	...	...	...	...	Opt	Opt	Opt	33 1/2	10
Schacht H–1 1/2	3	1/4	1 1/4	2	H	4 1/4	1 3/4	15	1 1/4	38	1 1/4	F	33	2 1/2	1/4	1	48	2 1/2	1/4	1	.....	.....	.....	31	.....
Schacht G–2–2 1/2–3	4	1/4	1 1/4	2	H	18	2	14	1 1/4	40	2	F	8 1/4	3	1/4	4	13 1/2	3 1/4	1/4	4	.....	.....	.....	35 3/4	...
Schacht G–4–5	4	1/4	1 1/4	2	H	18	2	14	1 1/4	40	2	F	8 1/4	3	1/4	4	15	4	3/8	4	.....	.....	.....	35 3/4	....
Selden 30C	4	1/4	1	1 1/16	V	6	1 1/2	11 1/2	1 1/2	41	1 1/4	F	11 1/8	3 1/4	1/4	4	11 1/8	3 1/4	1/4	4	114	71	198 1/2	34	....
Selden 50B	4	1/4	1	1 1/16	V	8 3/8	1 1/2	14 3/4	1 1/2	39 1/4	1 1/2	F	13	3 1/2	1/4	4	13	3 1/2	1/4	4	136	82	227 3/4	34	.....
Selden 52	4	1/4	1 1/4	1 11/32	V	8 3/8	1 1/2	16 1/4	1 1/2	40 3/8	2	F	15 5/8	3 3/4	1/4	4	15 5/8	3 3/4	1/4	4	240	161	295	52	.....
Selden 53B	4	1/4	1 1/4	1 11/32	V	11 1/2	1 1/2	16 1/4	1 1/2	40 3/8	2	F	13	3 1/2	1/4	3	13	3 1/2	1/4	4	136	82	244	34	.....
Selden 70B	4	1/4	1 1/4	1 11/32	V	8 3/8	1 1/2	16 3/4	1 1/2	40 3/8	2	F	15 5/8	3 3/4	1/4	4	15 5/8	3 3/4	1/4	4	155	91	253 1/8	37 1/2	.....
Selden 73B	4	1/4	...	...	V	9	1 3/4	14 3/4	1 1/2	40 3/8	2	F	...	...	...	...	...	...	...	...	155	91	...	...	.....
Selden 90B	4	1/4	1 1/2	1 11/32	V	7	1 3/4	16 3/4	1 1/2	40 3/8	2	F	17 11/32	4	1/4	4	17 11/32	4	1/4	4	153	89	256 1/8	37 1/2	.....

Replacement Table—Continued

NAME, MODEL AND TONNAGE	ENGINE												BRAKE LINING								FRAME				
	Piston Rings		Carburetor			Upper Hose		Lower Hose		Fan Belt			Service				Emergency				Length			Width	
	No. per Cyl.	Width	Outlet Diameter	★ Inlet Diameter	Vertical or Horizontal	Length	Width	Length	Width	Length	Width	Type	Length	Width	Thickness	No. of Pieces	Length	Width	Thickness	No. of Pieces	Back of Driver's Seat	Driver's Seat to Center of Rear Axle	Over All	Over All	Clearance at Lowest Point of Chassis
Service 25F-1	4	1/8	1	1/8	V	12 1/2	1 3/4	10	1 1/4	32 3/8	1 1/2	F	20	2	1/8	4	20	2	1/8	4	106 3/4	65 3/4	203 1/2	32	7 1/4
Service 34-1 1/2	4	1/4	1 1/4	1/8	V	8	1 3/4	10	1 1/4	38	3/4	V	11 3/4	3 1/4	1/4	4	11 3/4	3 1/4	1/4	4	121	82 1/4	216 1/2	34	10 3/4
Service 61-2 1/2	4	1/4	1 1/4	1/8	V	10	2	10	1 1/4	38	3/4	V	13 1/2	3 1/2	1/4	4	13 1/2	3 1/2	1/4	4	127 3/4	92 1/4	226 1/2	34	10
Service 81-3 1/2	4	1/4	1 1/4	1/8	V	10	2	11 1/2	1 1/4	40 3/4	3/4	V	15 1/2	3 3/4	1/4	4	15 1/2	3 3/4	1/4	4	144	100 1/4	245 3/4	38	8 1/2
Service 103-5	4	1/4	1 1/4	1/8	V	10	2	11 1/2	1 1/4	40 3/4	3/4	V	18	4	1/4	4	18	4	1/4	4	144	100 3/4	245 3/4	38	10
Standard 75-1 1/4	3	1/8	1	1 1/8	V	10 1/2	2 1/8	14 3/4	1 1/8	39 1/4	1 1/4	F	11 3/4	2 1/2	1/4	4	11 3/4	2 1/2	1/4	4	108	62 1/2	198	32	9 1/4
Standard 1 1/2 K-1-1 1/2	3	1/8	1	1 1/8	V	10 1/2	2 1/8	14 3/4	1 1/8	39 1/4	1 1/4	F	10 7/8	3	1/4	4	10 7/8	3	1/4	4	120	72 1/2	210	32	9 1/4
Standard 2 1/2 K-2 1/2-3	3	1/8	1 1/4	1 1/4	V	10	1 7/8	16	1 7/8	40 7/8	1 1/2	F	13 1/8	3 1/2	1/4	4	13 1/8	3 1/2	1/4	4	132	83	220 3/8	32	12
Standard 3 1/2 K-3 1/2-5	3	1/8	1 1/4	1 1/4	V	10	1 7/8	16	1 7/8	41 1/2	1 1/2	F	15 5/8	3 3/4	1/4	4	15 5/8	3 3/4	1/4	4	144	93 3/4	240	38	9 1/4
Standard 5K-5-7	3	1/4	1 1/2	1 1/4	V	8	1 7/8	3 1/2	1 7/8	42 1/4	1 3/4	F	17 1/4	4	1/4	4	17	4	1/4	4	144	93 3/4	244 1/2	38	9
Sterling GB2	6	1/4	1 1/8	1/4	V	10	1 1/2	18	1 1/2	38	1 1/2	F	15 1/8	3 3/4	1/4	4	15 1/8	3 1/2	1/4	4	.....	.....	287	34	.....
Sterling GB4	6	1/4	1 1/2	1/4	V	.....	1 1/2	.....	1 1/2	40 1/2	1 1/2	F	15 1/8	3 3/4	1/4	4	15 1/8	3 1/2	1/4	4	.....	.....	287	34	.....
Sterling GB6	6	1/4	1 1/4	1/4	V	.....	1 1/2	.....	1 1/2	.....	.....	F	15 1/8	3 3/4	1/4	4	15 7/8	3 1/2	1/4	4	.....	.....	318	34	.....
Sterling DW8	3	1/4	1 1/4	1/4	V	11 1/2	1 1/4	.....	1 1/4	.....	.....	F	11 1/8	3 1/4	1/4	4	11 1/8	3 1/4	1/4	4	120	70	216	33 1/2	.....
Sterling EW23	3	1/4	1 1/4	1/4	V	13 1/2	1 1/2	22	1 1/2	40 1/2	1/2	F	17 3/4	4	1/4	4	17 3/4	4	1/4	4	150	91	259	30	.....
Sterling DW10, DW12	3	1/4	1 1/4	1/4	V	10	1 1/2	18	1 1/2	38	1 1/2	F	11 1/8	3 1/4	1/4	4	11 1/8	3 1/4	1/4	4	120	70	216	34	.....
Sterling DW14	3	1/4	1 1/4	1/4	V	10	1 1/2	18	1 1/2	38	1 1/2	F	13 3/8	3 1/2	1/4	4	13 3/8	3 1/2	1/4	4	138	84	234	34	.....
Sterling EW23	3	1/4	1 1/4	1/4	V	13 1/2	1 1/2	22	1 1/2	40 1/2	1 1/2	F	17 3/4	4	1/4	4	17 3/4	4	1/4	1	158	91	259	38	.....
Sterling DWS14, DW16	3	1/4	1 1/4	1/4	V	10	1 1/2	18	1 1/2	38	1 1/2	F	13 3/8	3 1/2	1/4	4	13 3/8	3 1/2	1/4	4	138	84	234	34	.....
Sterling EW20	3	1/4	1 1/2	1/4	V	13 1/2	1 1/2	22	1 1/2	40 1/2	1 1/2	F	15 1/8	3 3/4	1/4	4	15 1/8	3 3/4	1/4	4	144	85	245	38	.....
Sterling EC23	3	1/4	1 1/2	1/4	V	10	1 1/2	18	1 1/2	40 1/2	1 1/2	F	56 1/8	4 1/2	1/4	2	29 1/4	4	1/4	1	158	97	259	38	.....
Sterling EWS25, EW27	3	1/4	1 1/2	1/4	V	10	1 1/2	18	1 1/2	40 1/2	1 1/2	F	17 3/4	4	1/4	4	17 3/4	4	1/4	4	158	91	259	38	.....
Sterling ECS24, EC26 & 28	3	1/4	1 1/2	1/4	V	10	1 1/2	18	1 1/2	40 1/2	1 1/2	F	56 1/8	4 1/2	1/4	2	29 1/4	4	1/4	1	158	97	259	38	.....
Sterling EC29	3	1/4	1 1/2	1/4	V	13 1/2	1 1/2	22	1 1/2	40 1/2	1 1/2	F	56 1/8	4 1/2	1/4	2	29 1/4	4	1/4	1	158	97	259	38	.....
Stewart M15-1 1/4	3	1/8	.....	1	.....	.....	.....	.....	.....	.....	.....	...	41 3/8	2	1/8	2	22 3/4	2	1/8	1	99 1/2	.....	.....	38	.....
Stewart M9-1 1/2	3	1/8	.....	1	.....	.....	.....	.....	.....	.....	.....	...	48 1/2	2	1/8	2	8	5	1/8	2	119 1/4	.....	.....	32	.....
Stewart M7X	3	1/4	.....	1 1/8	.....	.....	.....	.....	.....	.....	.....	...	50 3/8	2	1/8	2	8	5	1/8	2	132 3/4	.....	.....	32	.....
Stewart M10X	3	1/4	.....	1 5/8	.....	.....	.....	.....	.....	.....	.....	...	60	3	1/8	2	8	5	1/8	2	138	.....	.....	32	.....
Super Truck 50	3	1/4	1 1/4	1 1/4	V	18 1/2	1 3/4	19	1 1/2	37 1/2	1 7/8	F	51 1/2	2 1/4	1/4	2	51 1/2	1 1/4	1/4	2	135	84	243	36	9 1/4
Super Truck 70	3	1/4	1 1/4	1 1/4	V	18 1/2	1 3/4	19	1 1/2	37 1/2	1 7/8	F	55 1/2	2 1/2	1/4	2	55 1/2	2 1/4	1/4	2	144	97 7/8	249	34	10 1/4
Super Truck 100	3	1/4	1 1/2	1 1/4	V	6	1 3/4	19	1 3/4	42	1 7/4	F	68	3	1/4	2	51 1/2	3	1/4	2	144	97 7/8	249	34	10
Traffic C-4000	3	1/8	1	1/8	H	10 1/2	2	10 1/2	2	41 1/4	1 1/4	F	43 1/2	2 1/2	1/8	2	38	1 3/4	1/8	2	120 3/4	67 3/4	213 3/8	42	10 1/4
Traffic 6000	3	1/8	1	1/8	H	10 1/2	2	10 1/2	2	41 1/4	1 1/4	F	52	3	1/8	2	47	2	1/8	2	120 3/4	69 3/4	213 3/8	34	11 1/4
Traffic Speedboy	3	1/8	1	1/8	H	10 1/2	2	10 1/2	2	41 1/4	1 1/4	F	43 1/2	2 1/2	1/8	2	38	1 3/4	1/8	2	86	53 7/8	174	34	11 1/4
Transport 15-1	3	1/8	1	1	H	10 3/4	2	13	2	40 3/8	1 1/4	F	48	2 1/2	1/8	2	46 5/8	2 1/4	1/8	2	98 1/8	57 3/8	188	34	10
Transport 26-1 1/2	4	1/8	1	1	V	9 1/4	2	13	1 1/4	34 1/8	1 3/4	F	48 1/2	2	1/8	2	46 1/2	1 1/2	1/8	2	113 7/8	70 1/4	201	34	10
Transport 36-2	4	1/4	1 1/4	1 1/4	V	10 3/4	2	16	1 1/4	33 1/2	2	F	10 1/4	3 1/2	1/8	2	46 1/2	1 1/2	1/8	2	120 1/4	72 3/4	210	34	11
Transport 61-3 1/2	4	1/4	1 1/4	1 1/4	V	9 1/4	2	16	1 1/4	33 1/2	2	F	11 7/8	3	1/8	2	48 1/2	2 1/2	1/8	2	127 3/8	78 1/8	218	34	11
Transport 75-5	4	1/4	1 1/4	1 1/4	V	12	2	16	1 1/4	35 7/8	2	F	11 7/8	3	1/8	4	58	2 1/2	1/8	2	150 1/8	93 1/8	251 1/2	36 1/2	10 1/4
Traylor B	4	1/4	1	.....	V	10	2	6	1 1/4	38	1	F	50	2	1/4	2	50	2	1/4	2	117	75	204 3/4	34	10
Traylor C	4	1/4	1 1/4	.....	V	12	2	12	1 1/4	36	2	F	50	2	1/4	2	50	2	1/4	2	122	73 1/2	218 3/4	34	10 1/4
Traylor D	4	1/4	1 1/4	.....	V	12	2	12	1 1/4	36	2	F	56 1/2	2 1/4	1/4	2	56 1/2	2 1/4	1/4	2	142	76	241 1/2	34	9 1/4
Traylor F	4	1/4	1 1/4	.....	V	14	2	14	1 1/4	37	2	F	59	2 1/2	.....	2	59	2 1/2	...	2	165	92 1/2	273 1/4	35	11
Union FW-2 1/2	3	1/4	1 1/4	1 1/4	V	20	1 3/4	19 1/2	1 1/2	37 1/2	2	F	27	4 1/2	1/4	1	52	3	1/4	1	133 1/2	77 3/4	224	32	11 1/4
Union H-4	3	1/4	1 1/4	1 1/4	V	20	1 3/4	19 1/2	1 1/2	37 1/2	2	F	56 3/4	3 1/2	1/8	1	32	4 1/2	1/8	1	157 1/2	.....	.....	34	.....
Union HW-4	3	1/4	1 1/4	1 1/4	V	20	1 3/4	19 1/2	1 1/2	37 1/2	2	F	27	4 1/4	1/4	1	24	4	1/4	2	157 1/2	98	264	34	13 1/4
United 25	3	1/4	1 1/4	1/8	V	10	2	13 1/2	2	32 3/4	1/2	F	48	2 1/2	1/8	2	46 5/8	2 1/4	1/8	2	91 7/8	53 1/8	182	33	9 1/4
United 30	3	1/4	1 1/4	1/8	V	10	2	13 1/2	2	32 3/4	1 1/2	F	48	2 1/2	1/8	2	46 5/8	2 1/4	1/8	2	115 5/8	75 5/8	206	33	10 1/2
United 35	3	1/4	1 1/4	1/8	V	10	2	13 1/2	2	32 3/4	1 1/2	F	47 1/8	2 1/2	1/8	2	33 1/4	2 1/2	1/8	2	115 5/8	76 3/8	206	33	9
United 50	3	1/4	1 1/4	1/8	V	10	2	13 1/2	2	32 3/4	1 1/2	F	47 1/8	2 1/2	1/8	2	33 1/4	2 1/2	1/8	2	115 5/8	80 5/8	226	33	8 1/4
United 60	3	1/4	1 1/4	1/8	V	10	2	13 1/2	2	32 3/4	1 1/2	F	57 1/2	2 1/2	1/8	2	42 1/2	2 1/2	1/8	2	132 3/8	80 5/8	226	33	8 1/2
United 80	4	1/8	1 1/4	1/8	V	8 5/8	2	13 3/4	1 1/2	42	2	F	60	3	1/4	2	60	3	1/4	2	141 3/8	81 1/4	237 1/8	34	9 1/8
U.S.U.-1 1/4	4	1/8	1	1/8	V	11 1/2	1 3/4	11 1/2	1 1/4	33	1 1/4	F	50 1/2	2 1/2	1/8	2	20	1 1/2	1/8	4	108	70	195	32	9 1/4
U.S.N.-1 1/2	3	M	1	1/8	H	11 1/2	2	9	1 1/4	37	1 1/4	F	50 1/2	2 1/2	1/8	2	46 1/2	1 1/2	1/8	2	120	82	211	34	11
U.S.N.W. 24-2	4	1/8	1	1/8	H	10 3/4	1 3/4	11 1/2	1 1/4	33	1 1/4	F	21	2 1/4	1/4	4	21	2 1/4	1/4	4	120	82	211	34	11
U.S.R.-2 1/2-3	3	1/8	1 1/4	1/8	V	10	1 1/4	10	1 1/4	35	1 1/4	F	21	2 1/4	1/4	4	21	2 1/4	1/4	4	144	94	241	34	9 1/4
U.S.S.-3 1/2-4	3	1/4	1 1/4	1/4	V	9	1 1/2	8	1 1/2	37	1 1/4	F	21	4	1/4	4	21	3	1/4	4	156	104	258	36	9
U.S.T. 5-7	4	1/4	1 1/2	1/4	V	15	2	13	1 1/2	38 3/4	2	F	62	3	1/4	4	33	4	1/4	1	168	103	278	36	10 1/2
U.S.S. Spec. 4-5	3	1/4	1 1/4	1/4	V	9	1 1/2	8	1 1/2	37	1 1/4	F	21	4	1/4	4	21	3	1/4	4	156	104	258	36	....
Victor 25-1 1/4	3	1/4	1 3/8	1 5/8	V	10	2	14 1/2	2	33 3/4	1 1/2	F	22	2 1/2	1/8	4	23	2 1/2	1/8	1	90 3/4	54	186 3/4	34	10
Victor 40-1 1/2	3	1/4	1 3/8	1 5/8	V	8 1/2	2	12 1/2	1 1/2	33 3/4	1 1/2	F	48	2 1/2	1/8	2	35	2 1/2	1/8	2	105 1/8	66 5/8	194 3/8	34	9 1/2
Victor 50-2	3	1/4	1 3/8	1 5/8	V	8 1/2	2	12 1/2	1 1/2	33 3/4	1 1/2	F	49	2 1/2	1/8	2	35	2 1/2	1/8	2	111 1/8	75 5/8	200 3/8	34	9 1/2
Victor 60-2 1/2	3	1/4	1 3/8	1 5/8	V	8 1/2	2	12 1/2	1 1/2	33 3/4	1 1/2	F	59	2 1/2	1/8	2	44 1/4	2 1/2	1/8	2	130 7/8	90 5/8	216 3/8	34	9 1/2
Victor 70-2 1/2	3	1/4	1 3/8	1 5/8	V	8 1/2	2	12 1/2	1 1/2	33 3/4	1 1/2	F	59	2 1/2	1/8	2	44 1/4	2 1/2	1/8	2	130 7/8	90 5/8	216 3/8	34	9 1/2
Victor 80-3 1/2	4	1/4	1 3/8	1 5/8	V	10	1 1/2	12 1/2	1 1/2	44 3/4	1 1/2	F	59	2 1/2	1/8	2	44 1/4	2 1/2	1/8	2	145	88 3/4	238	36	10 1/2
Victor 85-5	4	1/4	1 3/8	1 5/8	V	10	1 1/2	12 1/2	1 1/2	44 3/4	1 1/2	F	71	2 1/2	1/8	2	55	2 1/2	1/8	2	145	88 3/4	238	36	9
Victor 90-6	4	1/4	1 3/8	1 5/8	V	.....	1 1/2	.....	1 1/2	.....	.....	...	71	2 1/2	1/8	2	55	2 1/2	1/8	2	145	88 3/4	243	36	11
Wachusett S-1	3	1/8	1 1/4	1/8	V	9 1/2	1 1/4	11	1 1/4	31 1/2	1 1/4	F	11 1/4	2 1/2	1/4	2	11 1/4	2 1/2	1/4	2	115	74	212	33	.....
Wachusett J-1 1/2	4	1/8	1 1/4	1/8	V	10	1 1/2	10 1/2	1 1/2	36	1 1/8	F	11	3	1/4	2	11	3	1/4	2	121	76	212	33	.....
Wachusett K2	4	1/8	1 1/4	1/8	V	11	1 1/2	11	1 1/2	40 1/2	1 1/8	F	11 3/4	3 1/4	1/4	2	11 3/4	3 1/4	1/4	2	145	78	240	33	.....
Wachusett L2 1/2	4	1/4	1 1/4	1/8	V	10	1 1/2	11	1 1/2	41 1/2	1 1/8	F	13 1/2	3 1/2	1/4	2	13 1/2	3 1/2	1/4	2	144	94	241	33	.....
Walker 12	...	...	...	...	...	...	...	...	...	...	...	...	.....	.....	.....	...	11	2 1/2	1/4	8	72	.....	.....	32	.....
Walker 15	...	...	...	...	...	...	...	...	...	...	...	...	45 1/2	2 1/2	1/8	2	16	2	1/8	4	90	.....	.....	32	.....
Walker P-3 1/2	...	...	...	...	...	...	...	...	...	...	...	...	53 1/4	3	1/4	2	19 1/4	2 1/2	1/4	4	140	.....	.....	35	.....
Walker N-5	...	...	...	...	...	...	...	...	...	...	...	...	53 1/4	3	1/4	2	19 1/4	2 1/2	1/4	4	162	.....	.....	35	.....
Walker 22	...	...	...	...	...	...	...	...	...	...	...	...	45 1/2	2 1/2	1/8	2	16	2	1/8	4	99	.....	.....	32	.....
Walker 42	...	...	...	...	...	...	...	...	...	...	...	...	53 1/4	3	1/4	2	19 1/4	2 1/2	1/4	4	120	.....	.....	32	.....
Walter F	3	1/4	1 1/2	2	V	10	1 1/2	18	1 1/2	39	1 1/2	F	30	5	1/4	4	57	2 1/2	1/4	2	Opt	.....	.....	36	14
Ward LaFr'e 2B-2 1/2-3 1/2	3	1/4	1 1/4	1 1/2	V	7	1 1/2	16	1 1/2	41 1/2	1 1/2	F	13	3 1/2	1/4	4	13	3 1/2	1/4	4	137 1/2	.....	.....	33	.....
Ward LaFrance 4A-3 1/2-5	3	1/4	1 1/4	1 1/4	V	8 1/2	1 1/2	18	1 1/2	41 1/2	1 1/2	F	15 1/2	3 3/4	1/4	4	15 1/2	3 3/4	1/4	4	170 1/8	.....	.....	37	.....
Ward LaFrance 5A-5-7	3	1/4	1 1/2	1 1/4	V	9 1/4	1 1/2	18	1 1/2	41 1/2	1 1/2	F	18	4	1/4	4	18	4	1/4	4	170 1/8	.....	.....	37	.....
White 15A-Taxi	3	1/4	1 1/8	1/8	V	7 1/4	1	6 1/2	1 1/4	38	1 1/4	F	46	2 1/2	1/8	2	41 1/8	2 1/2	1/8	2	55 3/4	43 1/2	149 1/4	34	8 1/8
White 15-3/4	3	1/4	1 1/8	1 1/8	V	7 1/4	1	6 1/2	1 1/4	38	1 1/4	F	46	2 1/2	1/8	2	41 1/8	2 1/2	1/8	2	85 1/2	68	179	34	10 1/8
White 15-45-3/4	3	1/4	1 1/8	2	V	13 1/2	1 1/2	12	1 1/2	40 5/8	2	F	53 7/8	2 1/2	1/8	2	50 1/8	2 1/2	1/8	2	85 5/8	57 7/8	189	34	10 1/4
White 20-2	3	1/4	1 1/8	1 1/8	V	7 1/4	1	7 1/4	1 1/4	38	1 1/4	F	55 1/2	3 1/2	1/4	2	50 1/8	3 1/2	1/8	2	146	92 1/2	239 1/4	34	9 1/8

Replacement Table—Continued

NAME, MODEL AND TONNAGE	ENGINE												BRAKE LINING								FRAME				
	Piston Rings		Carburetor			Upper Hose		Lower Hose		Fan Belt			Service				Emergency				Length			Width	
	No. per Cyl.	Width	Outlet Diameter	Inlet Diameter	Vertical or Horizontal	Length	Width	Length	Width	Length	Width	Type	Length	Width	Thickness	No. of Pieces	Length	Width	Thickness	No. of Pieces	Back of Driver's Seat	Driver's Seat to Center of Rear Axle	Over All	Over All	Clearance at Lowest Point of Chassis
White 20–D–2	3	1/4	1 1/16	1 11/16	V	7 1/4	1	7 1/4	1 1/4	38	1 1/4	F	55 1/2	3 1/2	1/4	2	50 7/8	3 1/2	1/4	2	98	70	191 1/2	34	9
White 20–45–2	3	1/4	1 1/16	2	V	13 1/2	1 1/2	12	1 1/2	40 5/8	2	F	11 3/8	4	1/4	4	50 7/8	3 1/2	1/4	2	107 1/2	82	214 1/4	34	9
White 50A–Bus	3	1/4	1 1/16	2	V	13 1/2	1 1/2	12	1 1/2	45 3/4	2	F	11 3/8	4	1/4	4	50 7/8	3 1/2	1/4	2	168	112	274 3/4	74*	10
White 40–3 1/2	3	1/4	1 1/16	2	V	13 1/2	1 1/2	12	1 1/2	45 3/4	2	F	11 3/8	4	1/4	4	25 7/8	5	1/4	4	164	106 1/2	267 1/2	42 1/2	10
White 40–D–3 1/2	3	1/4	1 1/16	2	V	13 1/2	1 1/2	12	1 1/2	45 3/4	2	F	11 3/8	4	1/4	4	25 7/8	5	1/4	4	118	88 1/2	222 1/2	42 1/2	10
White 45–5	3	1/4	1 1/16	2	V	13 1/2	1 1/2	12	1 1/2	45 3/4	2	F	11 3/8	5	1/4	4	25 7/8	5	1/4	4	164	106 1/2	267 1/2	42 1/2	10
White 45–D–5	3	1/4	1 1/16	2	V	13 1/2	1 1/2	12	1 1/2	45 3/4	2	F	11 3/8	5	1/4	4	25 7/8	5	1/4	4	119	88 1/2	222 1/2	42 1/2	10
Wilcox AA–1	3	1/4	1	....	....	.....	.....	.....	.....	.....	.....	...	47 1/4	2 1/2	1/4	2	33 1/4	2 1/2	1/4	2	96	.....	.....	34	.....
Wilcox B–1 1/2	3	1/4	1 1/4	....	....	.....	.....	.....	.....	.....	.....	...	47 1/4	2 1/2	1/4	2	33 1/4	2 1/2	1/4	2	132	.....	.....	33	.....
Wilcox C–2 1/2	3	1/4	1 1/4	....	....	.....	.....	.....	.....	.....	.....	...	57 1/2	2 1/2	1/4	2	42 1/2	2 1/2	1/4	2	141	.....	.....	33	.....
Wilcox E–3 1/2	3	1/4	1 1/4	....	....	.....	.....	.....	.....	.....	.....	...	57 1/2	2 1/2	1/4	2	42 1/2	2 1/2	1/4	2	156	.....	.....	33	.....
Wilcox F–5	3	1/4	1 1/2	....	....	.....	.....	.....	.....	.....	.....	...	69 3/8	3 1/2	1/4	2	52	3 1/2	1/4	2	148 1/2	.....	.....	36	.....
Witt-Will P–2	3	1/4	1 1/4	1 1/4	V	8	1 1/2	12	1 1/4	31	1 1/4	F	48	3 1/4	1/4	4	48	3 1/4	1/4	4	.....	78	223	32	10
Witt-Will SS–3	3	1/4	1 1/4	1 1/4	V	8	1 1/2	12	1 1/4	41	1 1/2	F	52	3 1/2	1/4	4	52	3 1/2	1/4	4	156	108	242	32	10
Witt-Will N–1 1/2	3	1/4	1 1/4	1 1/4	V	8	1 1/2	12	1 1/4	31	1 1/4	F	48	3 1/4	1/4	4	48	3 1/4	1/4	4	137	78	226	32	10
Witt-Will S–2 1/2	3	1/4	1 1/4	1 1/4	V	8	1 1/2	12	1 1/4	41	1 1/2	F	52	3 1/2	1/4	4	52	3 1/2	1/4	4	137	78	226	32	10
Yellow Cab M22	3	1/4	1	1 1/2	V	8 1/4	2	10 1/8	2	38 1/2	5/8	V	49	2 1/2	1/4	2	45	2 1/2	1/4	2	60	.....	.....	43	.....
Yellow Cab M42–1 1/4	3	1/4	1	1 1/2	V	8 1/4	2	10 1/8	2	38 1/2	5/8	V	21 3/4	3	1/4	4	11	3	1/4	2	92	.....	.....	32	.....
Yellow Cab Express T1	3	1/4	1	1 1/2	V	9 1/2	2	9 1/2	2	39 1/4	3/4	V	21 3/4	3 1/2	1/4	4	11 1/2	2 1/2	1/16	2	94 7/8	61 1/4	181 3/8	34 1/2	.....

Electric Commercial Cars

Name and Model Number	Total Weight Resting on Four Tires	Chassis Weight—Exclusive of Battery	Minimum Load Capacity	Maximum Load Capacity	Chassis Price	Maximum Speed	Location of Battery	Mileage Per Charge	Motor	Controller	Speeds Forward	Drive	Rear Axle	Springs	Front Tires	Rear Tires	Steering Gear	Wheelbase	Per Cent of Weight on Rear Wheels
Autocar E 1F	12000	3650	.....	.....	2400	.....	A	.....	G-E	G-E	5	R	Own	Row	34x4	34x5	Ross	107	60
Autocar E 2D	15000	4300	.....	.....	2800	.....	A	.....	G-E	G-E	5	R	Own	Row	34x5	34x6	Ross	120	60
Autocar E 3H	18000	4900	.....	.....	3200	.....	A	.....	G-E	G-E	5	R	Own	Row	34x5	36x8	Ross	131	60
Autocar E 4Y	26000	6800	.....	.....	4000	.....	A	.....	G-E	G-E	5	R	Own	Row	34x6	36x6§	Ross	138	60
Autocar E 5M	30000	7200	.....	.....	4300	.....	A	.....	G-E	G-E	5	R	Own	Row	36x7	36x7§	Ross	138	60
C-T -H1	5600	2400	.....	.....	.....	14	A	55	G-E	Own	4	Own	F	Shel	36x3	36x3½	W	108	68
C-T F-1.5	6600	2800	.....	.....	.....	14	A	60	G-E	Own	4	Own	F	Shel	36x3	36x4	W	94	65
C-T H-1.5	6600	2800	.....	.....	.....	14	A	60	G-E	Own	4	Own	F	Shel	36x3	36x4	W	116	71
C-T F-2	8000	3100	.....	.....	.....	14	A	50	G-E	Own	4	Own	F	Shel	36x3½	36x5	W	96	68
C-T H-2	8000	3100	.....	.....	.....	14	A	50	G-E	Own	4	Own	F	Shel	36x3½	36x5	W	124	70
C-T F-4	11950	4200	.....	.....	.....	12	A	50	G-E	Own	4	Own	F	Shel	36x4	36x4†	W	116	68
C-T A-7	17700	5800	.....	.....	.....	11	A	45	G-E	Own	4	I	D	Shel	36x6	36x4†	W	122	60
C-T F-7	17900	6000	.....	.....	.....	11	A	45	G-E	Own	4	Own	F	Shel	36x5	36x5†	W	136	68
C-T A-10	22250	6500	.....	.....	.....	10	A	45	G-E	Own	4	I	D	Shel	36x7	36x5†	W	132	59
C-T F-10	22750	7000	.....	.....	.....	10	A	45	G-E	Own	4	Own	F	Shel	36x6	36x6†	W	152	68
Kelland AT	.....	1950	1000	1500	.....	15	S	50	G-E	G-E	4	R	Flot	Mer	34x3	34x3	Ross	102	60
Kelland BT	.....	2050	1500	2000	.....	15	S	50	G-E	G-E	4	R	Flot	Mer	34x3½	34x3½	Ross	102	60
Kelland CT	.....	2150	2000	2500	.....	15	S	50	G-E	G-E	4	R	Flot	Mer	34x3½	34x4	Ross	102	60
Kelland AH	.....	2500	1000	1500	.....	15	A	45	G-E	G-E	4	C	D	Mer	36x3	36x3	Hin	106	60
Kelland BH	.....	2600	1500	2000	.....	15	A	45	G-E	G-E	4	C	D	Mer	36x3½	36x3½	Hin	106	60
Kelland CH	.....	2700	2000	2500	.....	15	A	45	G-E	G-E	4	C	D	Mer	36x3½	36x4	Hin	106	60
Kelland ATS	.....	2200	1000	1500	.....	15	H&S	50	G-E	G-E	4	R	Flot	Mer	34x3	34x3	Ross	102	60
Kelland BTS	.....	2300	1500	2000	.....	15	H&S	50	G-E	G-E	4	R	Flot	Mer	34x3½	34x3½	Ross	102	60
Kelland CTS	.....	2400	2000	2500	.....	15	H&S	50	G-E	G-E	4	R	Flot	Mer	34x3½	34x4	Ross	102	60
Lansden Century	.....	1700	.....	1250	1600	15	S	60	G-E	Own	4	R	Flot	SP	32x4½	32x4½	Ross	108	50
Lansden Century	.....	1950	.....	2000	1850	15	S	60	G-E	Own	4	R	Flot	SP	33x5	33x5	Ross	112	50
Lansden Marathon	.....	2900	.....	2000	1850	14	A	50	G-E	Own	4	C	D	SP	36x3½	36x4	Bay	108	60
Lansden Marathon	.....	4400	.....	4000	2250	13	A	50	G-E	Own	4	C	D	SP	36x4	36x3½†	Bay	120	60
Lansden Marathon	.....	5700	.....	7000	2950	11	A	45	G-E	Own	4	C	D	SP	36x5	36x5†	Bay	133	60
Lansden Marathon	.....	7500	.....	10000	3350	10	A	40	G-E	Own	4	C	D	SP	36x6	36x6†	Bay	146	60
O. B–B	.....	.....	.....	.....	.....	13	.....	.....	G-E	Own	...	C	D	.....	36x4	36x3½†	Own	107	.....
O. B–C	.....	.....	.....	.....	.....	11	.....	.....	G-E	Own	...	C	D	.....	36x5	36x4 †	Own	135	.....
O. B–D	.....	.....	.....	.....	.....	10	.....	.....	G-E	Own	...	C	D	.....	36x6	36x5 †	Own	143	.....
Steinmets 15	6800	2200	1000	2250	1800	18	H&S	60	Own	Own	4	R	Own	Lig	32x4½*	32x4½*	Lav	114	55
Walker 12	.....	1900	.....	1000	.....	15	H&S	50	G-E	Own	4	.....	Tim	Det	32x3	32x3½	Ross	104	66
Walker 15	.....	2800	.....	1500	.....	14	A	50	West	West	5	Own	Own	Math	34x3	36x3½	Ross	94	66
Walker 22	.....	3000	.....	2000	.....	13	A	50	West	West	5	Own	Own	Math	34x3½	36x4	Ross	101	66
Walker 42	.....	4200	.....	4000	.....	13	A	50	West	West	5	Own	Own	Math	36x4	36x6	Ross	114	66
Walker P	.....	6000	.....	7000	.....	11	A	40	West	West	5	Own	Own	Math	36x5	38x5†	Ross	131	66
Walker N	.....	6700	.....	10000	.....	10	A	40	West	West	5	Own	Own	Math	36x6	38x6†	Ross	141	66
Walter HD	6800	2300	.....	2000	2200	16	A	60	Diehl	G-E	5	B	.....	.....	32x3½	32x4	Ross	98	60
Walter EN	13200	4400	.....	5000	3100	15	A	50	G-E	G-E	5	Own	D	.....	36x4	36x7	Gem	114	60
Walter EL	16800	5000	.....	7000	3700	13½	A	50	G-E	G-E	5	Own	D	.....	36x5	36x4	Gem	132	60
Walter ES	23600	7200	.....	11000	4500	12	A	50	G-E	G-E	5	Own	D	.....	36x6	40x6	Ross	150	70
Walter ER	28400	7500	.....	15000	4800	11	A	50	G-E	G-E	5	Own	D	.....	36x7	40x7	Ross	150	70
Ward A211	4650	1800	600	1150	.....	15	S	75	G-E	Own	4	W	Shel	Shel	32x3	32x3½	Own	88	56
Ward B-222	6000	2300	1010	1700	.....	14	S	84	G-E	Own	4	W	Shel	Shel	32x3½	32x4	Own	91	62
Ward C-211	8000	2670	2170	2880	.....	13	S	65	G-E	Own	4	W	Shel	Shel	32x3½	34x5	Own	96	64
Ward E-211	12000	3570	4480	5430	.....	12½	S	56½	G-E	Own	4	W	Shel	Shel	34x4	36x6	Own	108	65
Ward G-211	16000	4500	6560	7760	.....	11	S	44	G-E	Own	5	W	Shel	Shel	36x5	36x8	Own	120	68
Ward J-211	22500	6630	9500	11200	.....	10	S	39½	G-E	Own	5	W	Shel	Shel	36x6	36x10	Own	136	70
Ward M-211	30000	8430	13780	15920	.....	9	S	36	G-E	Own	5	W	Shel	Shel	36x7	36x7†	Own	152	71

NOTE: Battery Equipment on all above makes is at the option of the purchaser. Battery Location Abbreviations: A-amidships; H-under hood; and S-under seat

Manufacturers and Models Included in the Specification Tables

List Includes Manufacturers of Buses and Electric Trucks

Trade Name	Capacity	Name	Address	How Manufacturer Sells: Nationally	Locally	Branches	Distributors	Dealers
Ace	2½-Bus	American Motor Truck Co.	Newark, Ohio	.....	Yes	.....	.....	.....
Acme	1, 1½, 2, 3, 5, 6¼-Bus	Acme Motor Truck Co.	Cadillac, Mich.	Yes	No	No	Yes	Yes
Acorn	2½, 4	Acorn Motor Truck Co.	Chicago, Ill.	No	Yes	No	No	No
American-La France	2½, 3½, 5, 6, 7-T. T.	American-La France Fire Engine Co.	Elmira, N. Y.	Yes	.....	Yes	No	Yes
Armleder	1½, 2½, 3½ T. T.	O. Armleder Motor Truck Co.	Cincinnati, Ohio	Yes	.....	1-N. Y. State only	.....	.....
Atterbury	1½, 2½, 3½, 5	Atterbury Motor Car Co.	Buffalo, N. Y.	Yes	No	No	Yes	Yes
Autocar	1, 1¼, 1½, 2, 2½, 3, 5, T. T.	Autocar Co.	Ardmore, Pa.	Yes	.....	Yes	.....	Yes
Available	1, 1½, 2, 2½, 3½ 4, 5	Available Truck Co.	Chicago, Ill.	No.	Yes	No.	.....	.....
Bessemer	1, 1½, 2½	Bessemer Motor Truck Co.	Plainfield, N. J.	.....	.....	.....	.....	.....
Bethlehem	1, 2, 2½, 3½	Bethlehem Motors Corp.	Allentown, Pa.	.....	.....	.....	.....	.....
Betz	1, 2½,	Betz Motor Truck Co.	Hammond, Ind.	No	Yes	.....	No	No
Biederman	1, 1¼, 1½, 2½, 3½, 5	Biederman Motors Co.	Cincinnati, Ohio	.....	.....	.....	.....	.....
Bridgeport	1½, 2½, 4-Bus	Bridgeport Motor Truck Corp.	Stratford, Conn.	Yes	Yes	Yes	Yes	Yes
Brinton	1½, 2½	Brinton Motor Truck Co.	Philadelphia, Pa.	.....	.....	.....	.....	.....
Brockway	1¼, 2, 3, 4, 5-Bus	Brockway Motor Truck Corp.	Cortland, N. Y.	Yes	.....	Yes	Yes	Yes
C. T. Elec.	½, ¾, 1, 2, 3, 3½, 5	Commercial Truck Co.	Philadelphia, Pa.	Yes	No	Yes	Yes	Yes
Casco	1, 2	Casco Motors, Inc.	Sanford, Me.	No	Yes	.....	.....	.....
Chevrolet	½, 1	Chevrolet Motor Co.	Detroit, Mich.	.....	.....	.....	.....	.....
Clinton	1¼, 2, 3, 4, 5 to 7-Bus	Clinton Motors Corp.	Reading, Pa.	.....	.....	.....	.....	.....
Clydesdale	1¼, 1½, 2, 2½, 3, 3½, 5	Clydesdale Motor Truck Co.	Clyde, Ohio.	Yes	No	No	Yes	Yes
Columbia	1½, 2½, 3	Columbia Motor Truck Co.	Pontiac, Mich.	.....	.....	.....	.....	.....
Commerce	1½, 2, 2½-Bus	Commerce Motor Truck Co.	Ypsilanti, Mich.	Yes	No	No	Yes	Yes
Concord	1, 1½, 2, 2½, 3	Abbott-Downing Truck & Body Company	Concord, N. H.	.....	.....	.....	.....	.....
Corbitt	1, 1¼, 1½, 2, 2½, 3, 4, 5	Corbitt Motor Truck Co.	Henderson, N. C.	Yes	.....	.....	Yes	Yes
Day-Elder	1½, 2, 2½, 3, 4, 5, Bus.	Day-Elder Motors Corp.	Newark, N. J.	Yes	.....	.....	Yes	Yes
Defiance	1½	Century Motor Truck Co.	Defiance, Ohio	Yes	No	Yes	Yes	Yes
Denby	1½, 2, 2½, 3, 4, 5	Denby Motor Truck Corp.	Detroit, Mich.	.....	No	Yes	.....	.....
Diamond T	1, 1¼, 1½, 2½, 3½, 5	Diamond T Motor Car Co.	Chicago, Ill.	Yes	No	Yes	Yes	Yes
Dixon	1½, 2, 2½, 3½, 5	Dixon Motor Truck Co.	Altoona, Pa.	.....	Yes	.....	.....	.....
Dodge Brothers	¾	Dodge Brothers, Inc.	Detroit, Mich.	.....	.....	.....	.....	.....
Dorris	1, 2½, 3½	Dorris Motor Car Co.	St. Louis, Mo.	.....	.....	.....	.....	.....
Double Drive	3	Double Drive Truck Co.	Benton Harbor, Mich.	.....	.....	.....	.....	.....
Duplex	1, 1½, 2, 3, 3½-Bus	Duplex Truck Co.	Lansing, Mich.	Yes	.....	No	.....	Yes
Eagle	1¼, 2½	Eagle Motor Truck Corp.	St. Louis, Mo.	.....	.....	.....	.....	.....
F. W. D.	3	Four-Wheel Drive Auto Co.	Clintonville, Wis.	Yes	.....	Yes	.....	Yes
Fageol	2, 3, 4, 6-Bus	Fageol Motors Co.	Oakland, Cal.	Yes	No	.....	.....	.....
Federal	1, 1¼, 1½, 2½, 4, 5-Bus, T. T.	Federal Motor Truck Co.	Detroit, Mich.	.....	.....	.....	.....	.....
Fifth Avenue	Bus	Fifth Avenue Coach Co.	New York City.	.....	.....	.....	.....	.....
Fisher Fast Freight	1½	Standard Motor Truck Co.	Detroit, Mich.	Yes	No	No	Yes	Yes
Ford	1	Ford Motor Co.	Highland Park, Mich.	Yes	No	Yes	No	Yes
Front Drive	1½	Double Drive Truck Co.	Benton Harbor, Mich.	.....	.....	.....	.....	.....
Fulton	1, 2	Fulton Motors Corp.	Farmingdale, N. Y.	.....	.....	.....	.....	.....
G. M. C	1, 2½, 3½, 5-T. T.	General Motors Truck Co.	Pontiac, Mich.	Yes	No	Yes	Yes	Yes
G. W. W.	1½, 2	Wilson Truck Mfg. Co.	Henderson, Iowa	.....	.....	.....	.....	.....
Garford	1, 1½, 2½, 4, 5, 7½ T. T. Bus	Garford Motor Truck Co.	Lima, Ohio	.....	.....	.....	.....	.....
Gary	1, 2½, 3, 3½, 5-Bus	Gary Motor Corp.	Gary, Ind.	Yes	Yes	No	Yes	.....
Gotfredson	1, 1½, 2, 3, 4, 5	Gotfredson Truck Corp.	Detroit, Mich. & Walkerville, Ont.	Yes	.....	Yes	Yes	.....
Graham	1, 1½-Bus	Graham Brothers	Detroit, Mich.	.....	.....	.....	.....	.....
Gramm-Bernstein	1, 1¼, 1½, 2½, 3, 4, 5	Gramm-Bernstein Motor Truck Co.	Lima, Ohio	.....	.....	.....	.....	.....
Grass Premier	1, 1½, 2, 2½, 3½ Bus	Grass Premier Truck Co.	Sauk City, Wis.	No	Yes	No	No	No
Guilder	1¼, 1½, 2, 3, 4, 5, 6-Bus	Guilder Engineering Co.	Poughkeepsie, N. Y.	.....	.....	.....	.....	.....
Hahn	1¼, 1½, 2, 2½, 3, 5	Hahn Motor Truck Co.	Hamburg, Pa.	Yes	Yes	.....	.....	.....
Harvey	2½, 3½, Bus T. T.	Harvey Motor Truck Co.	Harvey, Ill.	No	Yes	Yes	No	No
Hug	1, 1½, 2	Hug Company	Highland, Ill.	Yes	.....	.....	Yes	.....
Indiana	1, 1½, 2, 2½, 3½, 5	Indiana Truck Corp.	Marion, Ind.	Yes	Yes	Yes	Yes	Yes
International	1, 1½, 2, 3, 5-Bus	International Harvester Co. of America	Chicago, Ill.	.....	.....	.....	.....	.....
Kearns	1½, 2, 2½, 3½, 5	Kearns Dughie Motors Co.	Lewistown, Pa.	.....	.....	.....	.....	.....
Kelland (Elec.)	½, ¾, 1	Kelland Motor Car Co.	Newark, N. J.	No	Yes	No	No	No
Kelly-Springfield	1½, 2½, 3½-5-7	Kelly-Springfield Motor Truck Co.	Springfield, Ohio	Yes	No	Yes	Yes	Yes

Trade Name	Capacity	Name	Address	How Manufacturer Sells: Nationally	Locally	Branches	Distributors	Dealers
Kenworth	1, 1½, 2, 3, 4, 5	Kenworth Motor Truck Corp.	Seattle, Wash.	No	Yes	No	.....	Yes
King Zeitler	1, 1½, 2½, 3½, 5	King Zeitler Co.	Chicago, Ill.	.....	.....	.....	.....	.....
Kissel	1, 1½, 4, 5 Bus	Kissel Motor Car Co.	Hartford, Wis.	Yes	.....	No	Yes	Yes
Kleiber	1, 1½, 2½, 3½, 5	Kleiber Motor Truck Co.	San Francisco, Cal.	.....	.....	.....	.....	.....
Krebs	1½, 2, 2½, 3, 4, 5, 7½	Krebs Motor Truck Co.	Bellevue, Ohio	Yes	No	No	Yes	Yes
Lange	1½, 2½, 3½	Lange Motor Truck Co.	Pittsburgh, Pa.	.....	.....	.....	.....	.....
Lansden (Elec.)	¾, 1, 2, 3½, 5, 6	Lansden Company	Danbury, Conn.	Yes	.....	1-N. Y. State only	Yes	Yes
Larrabee-Deyo	1¼, 1½, 2¼, 2½, 3½-Bus	Larrabee-Deyo Motor Truck Co., Inc.	Binghamton, N. Y.	.....	.....	.....	.....	.....
LeMoon	1, 1½, 2, 2½, 3½, 5	Nelson & Le Moon Truck Co.	Chicago, Ill.	.....	.....	.....	.....	.....
Luedinghaus	1, 1½, 2, 3½, 5	Luedinghaus-Espenschied Wagon Co.	St. Louis, Mo.	.....	.....	.....	.....	.....
Maccar	1¼, 2, 3, 4, 5	Maccar Truck Co.	Scranton, Pa.	No	Yes	4	Yes	Yes
Mack	1½, 2, 2½, 3½, 5, 6½, 7½-Bus T. T.	International Motor Co.	New York, N. Y.	Yes	.....	86	.....	Yes
Mason Road King	1½-Bus	Mason Motor Truck Co.	Flint, Mich.	Yes	.....	Yes	Yes	Yes
Master	1¼, 1½, 2½, 3, 3½, 4, 5, 5½-Bus	Master Motor Truck Mfg. Co.	Chicago, Ill.	.....	.....	.....	.....	.....
Menominee	1, 1¼, 1½, 2½, Bus	Menominee Motor Truck Co.	Clintonville, Wis.	.....	.....	.....	.....	.....
Moreland	1, 1½, 2, 2½, 3, 3½, 5	Moreland Motor Truck Co.	Burbank, Cal.	.....	.....	.....	.....	.....
Nash	1, 2	Nash Motors Co.	Kenosha, Wis.	Yes	No	No	Yes	Yes
National	2, 3, 3½	National Steel Car Corp., Ltd.	Hamilton, Ont., Canada	Yes	No	2	No	Yes
Netco	2½, 3, 4	New England Truck Co.	Fitchburg, Mass.	.....	.....	.....	.....	.....
Noble	1, 1½, 2, 2½, 3, 3½, 4	Noble Motor Truck Co.	Kendallville, Ind.	No	No	No	Yes	Yes
Northway	1¼, 3, 5	Northway Motors Corp.	Natick, Mass.	.....	.....	.....	.....	.....
O. B. (Elec.)	2, 3½, 5	O. B. Electric Vehicles, Inc.	Long Island City N. Y.	.....	.....	.....	.....	.....
O. K.	1, 1½, 2, 2½, 3½	Nolan Truck Co.	Okay, Okla.	.....	.....	.....	.....	.....
Ogden	1, 1½, 2½, 3½, 5	Ogden Truck Co.	Chicago, Ill.	.....	.....	.....	.....	.....
Oshkosh	2, 2½, 4	Oshkosh Motor Truck Mfg. Co.	Oshkosh, Wis.	.....	Yes	No	.....	Yes
Overland	½	Willys-Overland Co.	Toledo, Ohio.	Yes	Yes	24	Yes	Yes
Patriot	1¼, 2, 3	Patriot Mfg. Co.	Havelock, Neb.	Yes	No	No	Yes	Yes
Penn	1, 2	Penn Motors Corp.	Philadelphia, Pa.	.....	.....	.....	.....	.....
Pierce-Arrow	2, 3, 4, 5, 6, 7½, T. T.	Pierce-Arrow Motor Car Co.	Buffalo, N. Y.	Yes	No	.....	Yes	Yes
Rainier	¾, 1, 1½, 2, 2½, 3½, 6	Rainer Trucks, Inc.	Long Island City, N. Y.	No	Yes	No	Yes	Yes
Rehberger	2, 3, 4, 5	Arthur Rehberger & Son, Inc.	Newark, N. J.	No	Yes	No	.....	.....
Reo	1¼-Bus	Reo Motor Car Co.	Lansing, Mich.	.....	.....	.....	.....	.....
Republic	1¼, 1½, 2, 3, 4 Bus	Republic Motor Truck Co., Inc.	Alma, Mich.	Yes	No	No	Yes	Yes
Rowe	2½, 3, 4, 5	Rowe Motor Mfg. Co.	Lancaster, Pa.	.....	.....	.....	.....	.....
Ruggles	1, 1¼, 1½, 2, 2½, 3-Bus	Ruggles Motor Truck Co.	Saginaw, Mich.	.....	.....	.....	.....	.....
Rumely	1½	Advance Rumely Thresher Co.	Laporte, Ind.	Yes	No	30	Yes	Yes
Safeway Six Wheeler	Bus	The Six Wheel Co.	Philadelphia, Pa.	Yes	.....	.....	.....	.....
Sandow	1, 1½, 2, 2½, 3½, 5	Sandow Motor Truck Co.	Chicago Heights, Ill.	Yes	No	.....	.....	.....
Sanford	1, 1½, 2½, 3½, 5	Sanford Motor Co.	Syracuse, N. Y.	Yes	.....	.....	Yes	.....
Saurer	6½, T. T.	Adolph Saurer, Inc.	New York, N. Y.	.....	Yes	Yes	No	Yes
Schacht	1, 1½, 2, 2½, 3, 3½, 4, 5-Bus	G. A. Schacht Motor Truck Co.	Cincinnati, Ohio.	Yes	.....	Yes	.....	Yes
Selden	1¼, 2, 2¼, 2½, 3, 3½, 4, 5-Bus	Selden Truck Corp.	Rochester, N. Y.	Yes	No	Yes	Yes	Yes
Service	1, 1½, 2½, 3½, 5	Service Motors, Inc.	Wabash, Ind.	Yes	.....	Yes	Yes	Yes
Standard	1¼, 1½, 2½, 3½, 6	Standard Motor Truck Co.	Detroit, Mich.	Yes	No	No	Yes	Yes
Steinmetz (Elec.)		Steinmetz Electric Motor Car Corp.	Arlington, Baltimore, Md.	Yes	.....	.....	Yes	Yes
Sterling	1, 1½, 2, 2½, 3, 3½, 5, 6, 10, T.T-Bus	Sterling Motor Truck Co.	Milwaukee, Wis.	Yes	.....	Yes	Yes	Yes
Stewart	1, 1½, 2, 2½, Bus 3½-4	Stewart Motor Corp.	Buffalo, N. Y.	Yes	.....	Yes	Yes	Yes
Stoughton	1¼, 1½, 2, 3.	Stoughton Wagon Co.	Stoughton, Wis.	.....	.....	.....	.....	.....
Super Truck	2½, 3, 3½, 5	O'Connell Motor Truck Co.	Waukegan, Ill.	No	Yes	No	No	No
Traffic	1½, 2, 3	Traffic Motor Truck Corp.	St. Louis, Mo.	.....	.....	.....	.....	.....
Transport	1, 1½, 2, 3½, 5	Transport Truck Co.	Mt. Pleasant, Mich.	.....	.....	.....	.....	.....
Traylor	1½, 3, 5	Traylor Eng. & Mfg. Co.	Allentown, Pa.	.....	.....	.....	.....	.....
Twin City	2½, 3½-Bus	Minneapolis Steel & Machinery Co.	Minneapolis, Minn.	Yes	No	Yes	Yes	Yes
U. S.	1¼, 1½, 2, 2½, 3, 4, 5-7	United States Motor Truck Co.	Cincinnati, Ohio	.....	.....	.....	.....	.....
Union	1½, 2½, 4, Bus	Union Motor Truck Co.	Bay City, Mich.	Yes	Yes	.....	.....	Yes
United	1, 1¼, 1½, 2, 2½, 3, 5	United Motor Products Co.	Grand Rapids, Mich.	Yes	.....	Yes	Yes	Yes
Uppercu	Bus	Aeromarine Plane & Motor Co., Inc.	Keyport, N. J.	.....	.....	.....	.....	.....
Victor	1¼, 1½, 2, 2½, 3½, 5, 6	Victor Motors, Inc.	St. Louis, Mo.	.....	.....	.....	.....	.....
Wachusett	1, 1½, 2, 2½	Wachusett Motors, Inc.	Fitchburg, Mass.	.....	Yes	.....	.....	.....
Walker (Elec.)	½, ¾, 1, 2, 3½, 5	Walker Vehicle Co.	Chicago, Ill.	.....	.....	.....	.....	.....
Walter (Elec.)	T. T.	Walter Motor Truck Co.	Long Island City, N. Y.	Yes	Yes	.....	Yes	.....
Ward (Elec.)	750 lbs. to 7 ton	Ward Motor Vehicle Co.	Mt. Vernon, N. Y.	Yes	.....	Yes	Yes	Yes
Ward La France	2½, 3½, 5, 7-Bus	Ward La France Truck Corp.	Elmira, N. Y.	Yes	No	Yes	.....	Yes
White	¾, 2, 2½, 3½, 5-Bus	White Co.	Cleveland, Ohio	.....	.....	.....	.....	.....
Wilcox	1, 1½, 2½, 3½, 5 Bus	Wilcox Trux, Inc.	Minneapolis, Minn.	.....	.....	.....	.....	.....
Winther	1½, 2½, 3, 3½, 5, 7	Winther Motor Co.	Kenosha, Wis.	.....	.....	.....	.....	.....
Witt Will	1½, 2, 2½, 3, 4, 5	Witt Will Co., Inc.	Washington, D. C.	No	Yes	No	No	No
Yellow Cab	¾, 1-Bus	Yellow Cab Mfg. Co.	Chicago, Ill.	.....	.....	.....	.....	.....

Selling a Delivery Service, Not Just a Truck

(*Continued from page 25*)

per year to operate and maintain. Many business men are paying as much as 20 to 30 cents—and in some cases more—out of every dollar of income for delivery costs. Most of them do not realize this nor do they know that in practically every instance this unnecessarily high cost can be materially reduced by employing the transportation equipment best suited on each route.

Recently I had the pleasure of making a field investigation for The Society for Electrical Development in the interest of ascertaining what users and non-users of electric trucks, electric light and power companies and dealers really think about the electric truck as well as the outlook for its accelerated increased use. After talking with these groups and others in 35 cities, going as far south as Atlanta, Ga., west to Chicago, Ill., and north to Montreal, I find that the difference between the electric truck situation today and that of even a year ago is the fact that business men generally are open-minded on the subject of electric truck transportation—that they are willing to face the facts. Business men realize that they must reduce delivery costs; that leaders in every line of the industry are using electric trucks where they are applicable in their transportation departments as a means of reducing these high costs. The electric truck of today is inherently the most economical and most efficient means of city transportation, far superior to any mode of transportation within the confines of its proper application.

Why does this condition prevail? The real reason, without doubt, is the fact that the electric truck industry has set about during the past year to sell an economical delivery service to meet conditions where the electric truck is applicable instead of just trying to sell an electric truck as such. Their efforts individually and collectively are interesting business men in the subject of city transportation and delivery which in turn has caused business men to realize where they can employ electric trucks economically and efficiently in their own business.

One reason why the electric truck has not kept pace with the march of the gas truck is the fact that this condition was not brought about sooner. Today the gas truck and the electric truck are allies, each serving a definite transportation need, each especially designed and qualified to perform a specific duty in the delivery systems of modern business. They are no longer competitors. This fact augurs well in the interest of bigger business for both in the future.

In line with their policy of selling a delivery service instead of just a truck the manufacturers of electric trucks, batteries and accessories are sponsers of cost analysis of delivery systems and has done a great deal of national advertising along the line of urging users of transportation to know their delivery conditions and to know their delivery costs.

A commercial truck company letter to prospects begins this way:

"This is straight talk about the place of the electric truck in your delivery system. More than ever before you are interested in increasing efficiency of your transportation system and in cutting delivery costs. That means better service and more profits from your business.

"Delivery equipment has two costs, first cost and operating cost. This is a fact business men sometimes lose sight of. They buy equipment that is cheap because it requires small initial investment. The result is often high operating cost and early replacement. You have repair bills to pay and every time the equipment is in the shop you lose the very thing it was purchased for—transportation."

The Walker Vehicle Company, Chicago; the Steinmetz Motor Car Corporation, Baltimore; the Kelland Motor Car Company, Newark, N. J., and others have been employing similar sales efforts. In consequence the United States Department of Commerce and Yale University, as examples, are interesting themselves in the subject of city delivery.

The electric truck industry is impressing upon users of transportation that every dollar cut from delivery expense is added to the profits; that the way to reduce delivery costs is to know delivery conditions and delivery costs and to buy a delivery service which will best minimize this cost. In singling out a delivery service as a salable commodity instead of just an electric truck as such the electric truck industry made a happy selection.

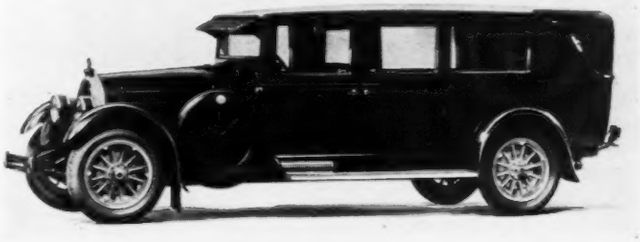
Lack of Equipment No Excuse for Poor Maintenance Work

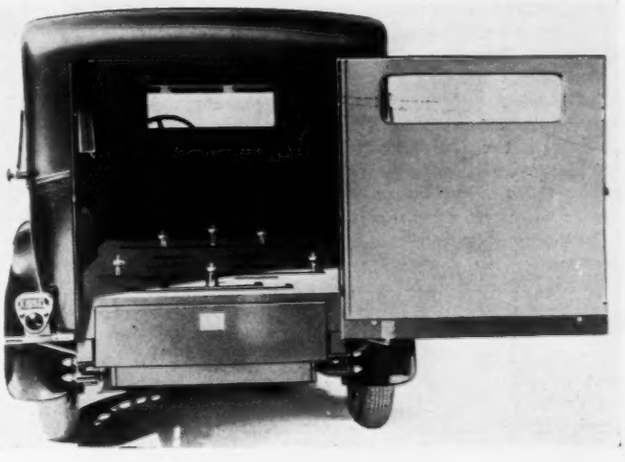
(*Continued from page 24*)

earnings for a two-week period receive a five per cent bonus which amounts to about $5 per man. The teams are rearranged every two weeks. That this system produces keen competition is indicated by the fact that $10 will usually cover the difference between the earnings of the team and it never exceeded $20.

William G. Dow gave some concrete proof that the piece work plan produces more and better work at the same time cutting down the number of mechanics necessary. He cited the following example: In January, 1922, 284 jobs were performed by a force of 60 men, the total of these jobs amounting to $10,000. Under the piece work plan two years later 564 jobs totaling $20,000 were handled by 16 mechanics. He advocated intensive selling methods to tone down the seasonal rush.

Exhibitors expressed themselves thoroughly pleased with the results of the show and indicated their intention of exhibiting at future shows of this kind. Some opnions were expressed as to the location of next year's show and the possibility of holding at at some other point. A number thought that a much greater attendance could be obtained if the show was held at a later time of the year. As May is the dealer's busy season, perhaps the fall of the year would be more convenient. To get the consensus of opinion a survey will be conducted by the N. A. C. C. among this year's exhibitors.





Showing the New Kissel Limousine Hearse Mounted on a Kissel Special Express

The body is an exclusive custom built creation designed and constructed by the Kissel Coach builders. In addition to its beauty, elegance and style, it is featured by the Kissel chassis construction. There are four-wheel brakes, balloon tires, six-cylinder engine, full pressure piling system, thermostatic control of cooling system, side play adjustments to springs, automatic lubrication of the chassis, low swung construction and stabilized frame.

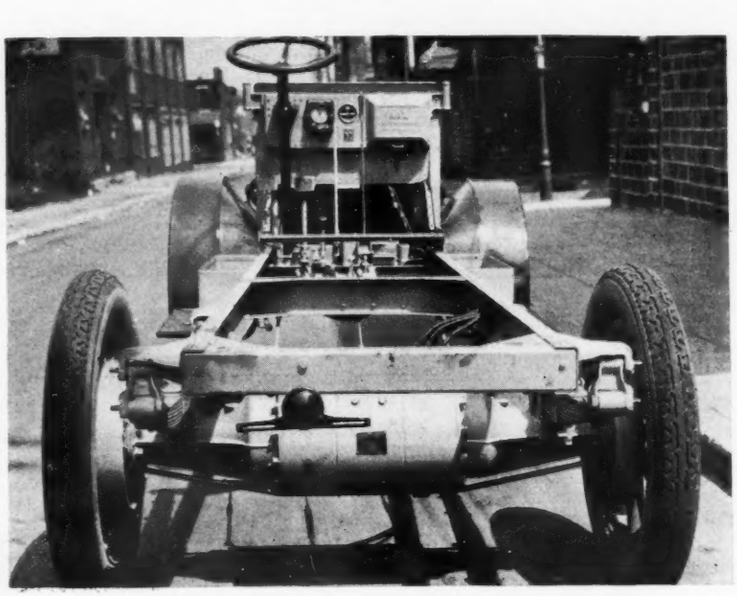
Automatic Brake-Controlled Current Cut-Off Feature of Leoni Electric Delivery Wagon

THE chassis of this novel electric vehicle, produced by A. M. Leoni, is a standard gas truck chassis of the usual ¾ ton capacity. It consists of a standard frame, spring hangers, springs, hood, dash, fenders, wheels, wheel rims, front axle and steering device as in gas truck construction. Even the radiator shell is designed with a shield in front having louvers matching those of the hood, much alike to the conventional winter fronts for gas-car radiators.

The use of standard parts, as far as the general chassis construction goes, has been adopted for two fundamental reasons: First, the lower production cost; second, appearance.

Having utilized all the gas vehicle parts possible, Leoni concentrated his attention upon those units that should be especially designed for an electric vehicle, namely, the drive and the controller. Both have mechanical and electrical features, as will be explained further, and these, Leoni states, if not rationally designed, may lack electrical and mechanical efficiency.

Storage battery cost, weight and capacity have been mimimized in this vehicle by mechanisms highly efficient electrically and mechanically.



Rear View of the Leoni Electric Truck

The illustration distinctly shows the general resemblance to gas truck construction

The Drive

The drive is a self-contained unit, in which the motor is embodied in the drive itself; therefore, the motor being co-axial with the drive, all angular gears, all adjustments, propeller shaft and universal joints are eliminated.

Spur gears only are used, and of the many systems possible the one adopted in this drive is the planetary-epicyclic, that is, that type of planetary gears in which the internal gear is stationary and the planets revolve together with their carrier. This system of gearing is the most efficient and silent as it allows the use of fine tooth-pitches. Planetary-epicyclic gearings have been successfully used for a long time and their use has been found highly satisfactory; therefore, outside of the arrangement adopted to meet the requirements of a drive, no untried element was introduced. However, due to the fact that the use of a high speed motor (2000 r. p. m.) in a small space required as high a gear reduction as 12.5 to 1 (in order to give the vehicle, with 33" diam. tires, a speed of about 16½ m. p. h.) two single reductions in tandem were adopted. This is claimed to be the first application of this form of drive in electric vehicles. It permits especially for heavy duty types of vehicles in which the wheel diameter is necessarily larger and the road speed considerably lower, the use of high speed reductions within small, compact and strong gearing units.

The yoke or motor frame forms part of the axle housing. The motor is located at the center of the axle. It has a hollow armature shaft mounted on ball bearings. This shaft, through a motor pinion, drives a first reduction gearset, to which the differential is secured and the differential shafts each drive a second reduction gearset (these two forming the final drive) which, in turn, drive the corresponding jack or wheel shaft. Ball bearings are used throughout the drive and, because the gear systems adopted are fully balanced, all the bearings of the motor shaft and of the gear systems are never under any load, outside the static load of the units carried. This bearing renewal is practically eliminated.

All planet pinions are mounted on Hyatt precision—series roller bearings. The three gearsets are formed with identical parts, that is: The three internal gears, the three planet carriers and all the planet pinions (two on the first reduction and three on each of the second reduction), together with their shafts or pins, are absolutely identical, thus greatly helping production and repairs.

These gearsets: Two on the drive side of the motor and one on the commutator side, are carried, concentrically, by individual housings that are bolted to the motor housing, thus forming with it an independent and self-contained sub-assembly, which is completed by the side sleeves, which house the jackshafts and the wheel bearings and support the brake works. An alloy steel truss-rod strengthens the whole axle unit against load deflections and the unit is completed by standard wheels and wheel hubs.

The gears run in oil baths, formed by the two compartments on each side of the motor plates, and these compartments are equipped with filling, draining and level plugs. The filling plugs, naturally the larger of the three, are combined with breathers to prevent the formation of air pressure at the inside of the compartments, under the heat from the gears which would tend to cause oil seeping into the motor at the shaft-seal of the motor plates.

The motor brushes are fully accessible by the removal of an inspection band that covers four large inspection ports in the motor frame. In case of motor disassembly, by simply pulling off the two end-sleeves of the axle unit, the motor and gear sub-assembly is taken off and thus any repair to the motor becomes a bench job.

The Brakes

The brake system is especially designed for efficiency and freedom, as an electric axle cannot tolerate any dragging at all under any circumstances. The brake shoe is of rigid or cast type with individual shoe pins and rollers resisting the cam action. The cam is of novel design, as it is floating or self-aligning. This feature equalizes automatically the pressures over the shoe rollers with the result that both shoes press uniformly against the brake drum. The brake lin-

ings and the drum surfaces are thus bound to wear uniformly. The brake system is completed with an equalizer of the differential-gear type, which is self-adjusting. The gears of this equalizer, packed in grease, are enclosed in a suitable housing.

The Current Control System

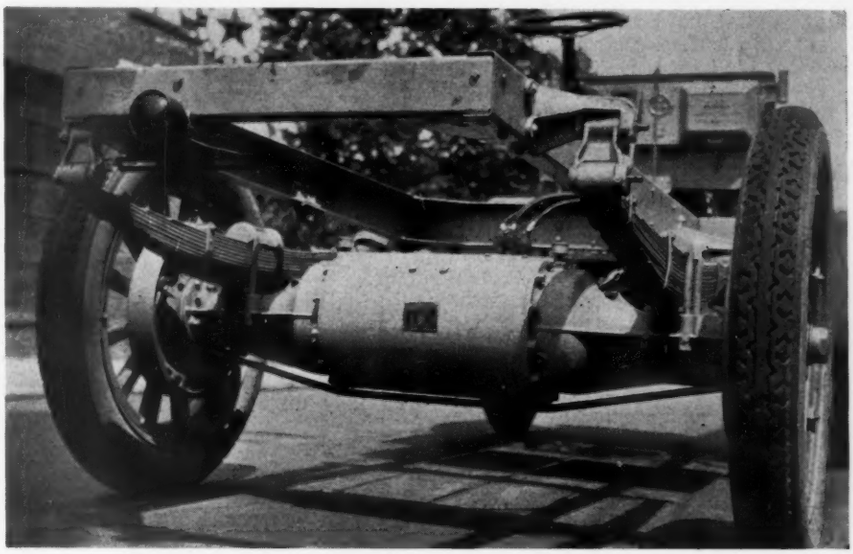
This, it is claimed, embodies novel features not found on any other vehicle on the market. It has the essentially new feature that the brake control is interlocked with the current control in such a manner that, when the brakes are applied, the current is automatically cut off before any braking action takes place.

The reason for this is obvious. If the current is on when the brakes are applied, then the current is wasted, the motor over-loaded and the brake linings unecessarily worn. The drivers of electric vehicles are warned against this; but they either forget to first cut off the current, by the operation of the controller lever, or they find it convenient, especially in traffic, to hold the car against the brakes. An investigation of this objectionable habit has shown that this is done in most of the cases because the driver, when driving under heavy traffic, needs both hands free to properly steer, and as electric truck controllers are usually hand-operated the driver forms the habit of using the brakes to temporarily hold, or to slow down the vehicle without cutting off the current.

The control and operation of this new electric vehicle is practically the same as that of any gas vehicle.

The two pedals and the two hand levers of the gas truck and even the accelerating button are retained. The difference is this: The clutch pedal of the gas truck operates the controller; the service brake pedal operates the service brake; the gear-shift lever of the car operates a running switch which takes care of the forward, neutral and reverse positions and the bayonet-type of emergency brake lever of the car answers the same purpose.

The acceleration button takes care of selecting the speeds. These are four, on both forward and reverse, though on reverse, usually only the first two are used. The speeds are selected in this manner: by pressing the button the controller is automatically thrown into first speed by the action of a controller spring; by releasing the foot from the button, the controller is thrown into second; by pressing the button once more the controller is thrown into third and by again releasing the foot from the button the fourth speed is obtained.



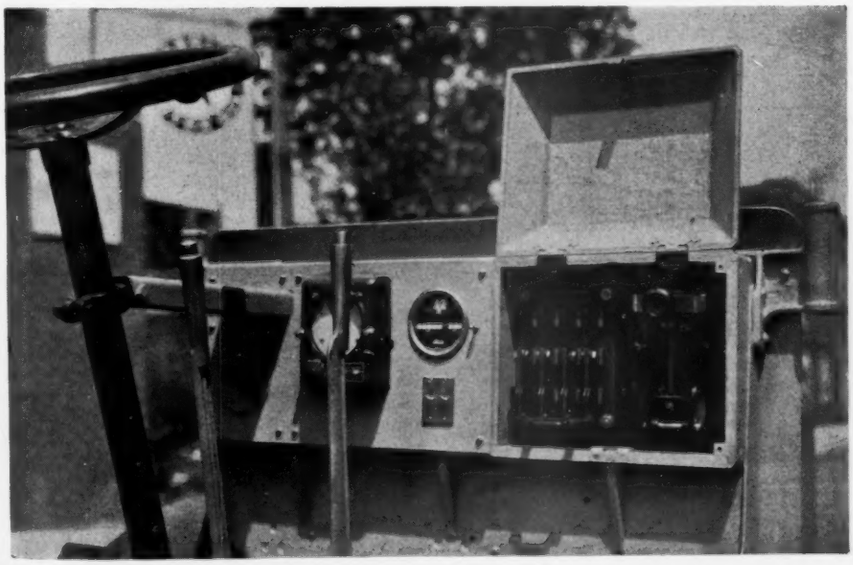
The Motor and Reduction Gears Form the Rear Axle

At this point, it is well to notice that the second and the fourth speeds—which only are running or economical speeds—are obtained without the need of keeping the foot on the speed button, while the button is compressed only on first and third speeds, which are acceleration speeds or resistance positions of the controller used only to taper off the current on rush and secure a smoother acceleration of the motor.

The clutch pedal interlocks with the control pedal. For instance, suppose we are running on fourth speed, or top speed, and it is desired to slow down the car on account of traffic conditions; then bring the car to a stop or maybe go on full speed again. By simply pressing the control pedal half way the controller is immediately thrown into second speed, which is a half speed and then, either the control pedal is pressed further to no current, or the button is pressed once again and the fourth speed is again attained. This is very practical and very conveniently done. Furthermore it can be done by the operation of the service brake pedal instead of the controller pedal, in which case the operator will have his foot ready to apply the brake if the conditions of traffic, under which he is operating, will make this action preferable. In fact, this is preferable to do on crowded city streets, while on open roads, where the slowing down or even the cutting off entirely of the current may be suggested by the desire to save current by coasting, the use of the controller pedal is preferable.

The fact that this is entirely optional, as the time effect is obtained equally by the use of both pedals, it is natural that the operator will, in each case, select the one he finds more convenient for that particular case. The result is always the same: full control of the vehicle by foot operation and saving of current whenever possible, mostly done automatically. In fact, entirely automatically when the brakes are applied and at the drivers discretion whenever the possibility of coasting offers itself.

The application of the emergency brake automatically cuts off the current before any braking takes action and this feature completes the measures of economy and safety sought in designing this new method of electric vehicle control.



All the Instruments Are Conveniently Located on the Dash

Specially Designed Motor

In this car the commutation of the motor fields has been eliminated entirely, the motor having been designed by the Diehl Mfg. Co. of Elizabeth, N. J., for this

very purpose. That is: with such characteristics that it can safely operate at all times with the fields permanently connected in series parallel. This method provides greater average efficiency and a higher sustained speed which is very desirable in climbing grades. The commutation is greatly helped, as it is kept constant, thus eliminating commutator sparking and the attendant troubles.

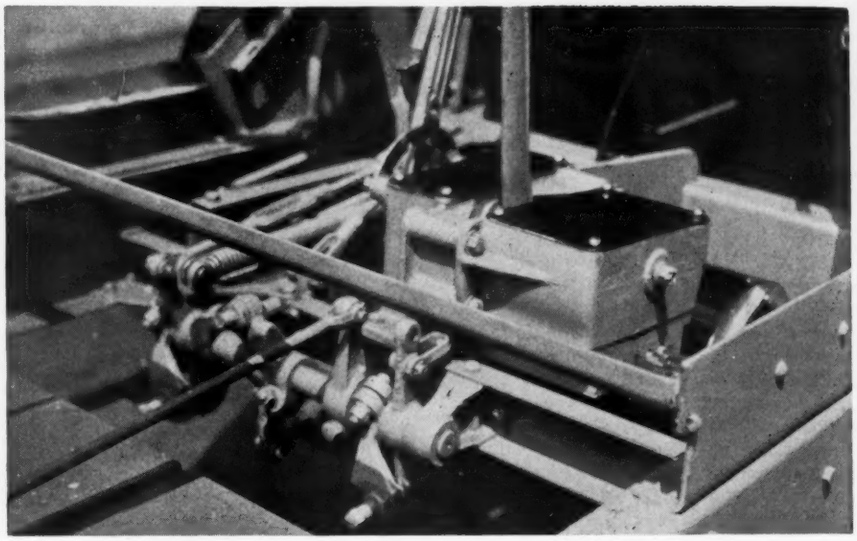
In place of field commutation Leoni has adopted battery commutation, or we might say in clearer terms, instead of motor control he has adopted battery control. By battery control it is understood that the battery is divided into two units and these units are at times arranged in series parallel and at times in straight series, thus the voltage is in the first case one half of the voltage of the second case. This means that the motor revolves at about one half speed in the first instance (hence the low or half vehicle speed) and at full speed on the second instance (hence the high or full vehicle speed). The only difference being, naturally, that the motor is slightly more efficient when running on full voltage; but the practical result is that also this second, or low speed, is highly efficient.

In the Leoni vehicle current expense is greatly reduced by the use of only one light step of external resistance, used only on first and third speed for accelerating purposes. This resistance is unusually light because on first speed the current voltage is already one-half, due to the parallel condition of the battery.

Small Capacity Battery

The afore-mentioned details explain the high efficiency of this vehicle in road tests which have shown that it takes only 51 watts per ton mile to operate the vehicle on level hard roads at a speed of 18 miles with one-half of the load. 70 miles were covered on one single battery charge and the battery was only the equivalent of a 42 cell 11 plates with a capacity of 150 A. H. These 70 miles were covered at an average speed of 12 m. p. h. and covered the road between Trenton, Elizabeth, New York, Newark and West Orange. It included all the traffic stops of driving through towns and cities. At the end of the trip the battery did not show sign of exhaustion, although the gravity of the electrolite showed that all the practical mileage had been used up. The road between Reading and Philadelphia (fully 60 miles of steep hills) was covered on one only charge of the battery.

The purpose in building high efficiency into the vehicle was to get the mileage needed by the daily requirements of the truck with the smallest possible battery, in order to reduce as much as possible the investment in battery equipment, battery renewal and to carry around the least dead weight possible. Statistics show that the average mileage of the light electric vehicles, as used by bakeries, department stores, laundries, etc., is below 30 miles per day. On daily service the current consumption will be greater than when taking long rides as on tests that were only efficiency tests; but even if the current consumption was twice as much, owing to heavy weather and heavy traffic, it appears that a small battery, as the one used in the above referred experiments, and supplied by the Phila. Storage Battery Co., was fully ample for the average daily work.



The Current Control System May Look Complicated, But It is Not
All linkages, bell cranks, etc. are made up of standard parts

An instrument box on the dash accomodates all the electrical instruments needed as standard equipment of the car, such as main switch, ampere-hour meter, circuit breaker, light switch and fuses. These are easily accessible and visible and because of their grouping in one unit, allow all the wires to be also grouped under the cover of the instrument box.

The battery, as mentioned, is divided into two sections for the sake of commutation, but this division is merely in the terminals. The visible division of the battery is in two units, namely, one under the hood and one under the seat. The section under the hood is accessible by simply lifting the hood; the other, under the seat, becomes accessible by the lifting of the seat cushion.

This section of the battery, instead of resting directly on the channels of the frame, rests on a subframe in order to keep it as low as possible and, therefore, maintain the standard seat height and to avoid any possible corrosion of the frame channels by battery leaking.

As the battery under the seat is fully 4" lower than usual, the standard height of the seat and thickness of cushion are not changed, therefore also the steering wheel is kept at its usual angle and distance from the seat.

The seat battery section is so arranged that it occupies practically one-half the usual space. The arrangement is such that standard stock bodies can be used with but a slight alteration to the front end of the body floor. In summing up this vehicle, while it looks and operates entirely like a conventional gas car, it is entirely special and highly efficient in those parts that, essentially, belong to the electric vehicle.

New York Edison Helps Electric Truck Users

The New York Edison Company recently placed in effect a deferred payment plan under which users of electric trucks may pay for charging boards and their installations in twelve monthly instalments. This will make it easier for prospective electric truck owners to equip their garages, handle their own charging and should prove popular with future users of electric trucks and should also be of considerable assistance to the manufacturers of trucks in selling their vehicles.

By reason of the new plan potential users of electric trucks who formerly hesitated in the purchase of electrics, because of unfamiliarity with electrical apparatus or of the cost involved, are now open to negotiations. Responsibility is removed from the purchaser's shoulders and assumed by the New York Edison Company. The customer makes his own selection of charging equipment and advises the company, which immediately supervises the proper installation of the equipment and makes payment upon correction.

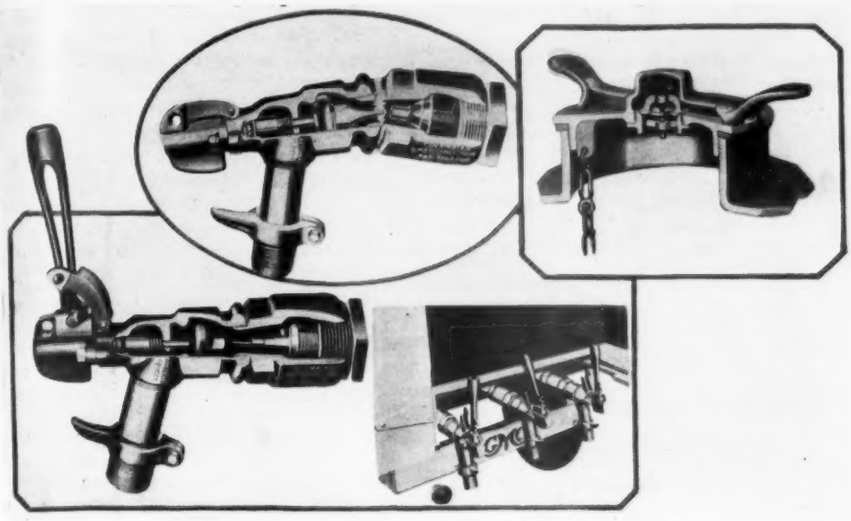
With this arrangement, future users of electric trucks can pay for their charging boards and their installations as they would for an electric iron or washing machine.

Guide Book on Valve Timing

A 56 page Mechanic's Guide Book containing complete information on valve timing, dimensions and clearance data, specifications of silent timing gears, tappet adjusting screws and silencers for overhead valve engines, has been compiled by John C. Hoof & Company, 157 N. Illinois St., Chicago, Ill. This booklet is a handy reference book containing a quick method of finding needed data. It is being distributed gratis.

Gasoline Truck Tank Dangers

Dealers Can Help Increase Safety in Gasoline Transportation



Details Illustrating Faucet and Fill Cap Construction

Upper left: A break point is provided between the faucet and the emergency valve. Lower left: Both faucet and emergency valve are operated jointly by the same lever. Right: Fill cap with ¾" vent; the ports from which are located immediately under the wing handles thus protecting them from rain and sleet.

EIGHT people were killed when a thousand-gallon gasoline tank truck exploded recently. Subsequent inquiry disclosed the fact that the explosion, which followed a fire, was due to faulty design, and construction of the tank. A report stated that "this occurrence emphasizes the necessity for gasoline distributors to use only truck tanks built by specialists and embodying safety features. Such manufacturers have a thorough knowledge of volatile and inflammable liquids and their action under heat and fire conditions, and they are building tanks accordingly."

When a tank is used for the transportation of an inflammable and explosive liquid like gasoline, it at once becomes a potential source of public danger. For this reason truck dealers should urge upon their customers the necessity for using only properly designed and reliable containers. Far too many of these people buy their tanks only on a price basis without regard to safety features. What such features are it is the purpose of this article to show, so that the dealer will be in a position to intelligently advise his clients.

In the first place the tank should be constructed in such a manner as to withstand rough usage in operation over bad roads. Leaky tanks are a constant source danger, so that seams and pipe joints must at all times sound. Welding appears to make the most satisfactory joint, and of course the tank must be thoroughly tested before leaving the factory.

One of the most frequent causes of leaks is the practice of attaching the draw-off pipes at one end to the tank and allowing the other end to be subjected to movement and vibration. The joint between the pipe and the tank soon gives way under this treatment. All pipes leading from the tank should be so fixed that relative movement between them and the tank is impossible.

Next in order of importance, perhaps, is the necessity for the provision of adequate vents in the upper part of the tank for the release of any pressure set up by heat, etc. If each vent is screened by wire gauze, fire will be unable to enter the tank, which will then simply act as a still.

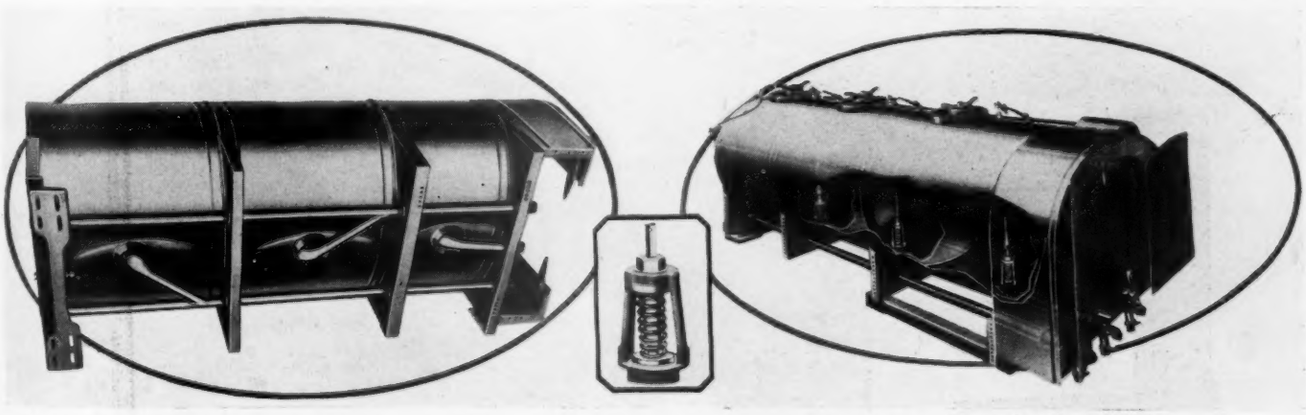
Emergency safety valves should be provided in the tank, so that in case of breakage of the pipe lines the fuel cannot escape. These valves should be controlled from a point preferably at the rear of the tank and they should be independent of one another and operated separately in such a manner that only one of them can be opened at any one time. These valves should be equipped with fusible links so that they are automatically released by heat at a low temperature, say 160 deg. F.

These are some of the **essential** features, and in addition to them are other fittings and arrangements which still further add to the safety of the conveyance.

One of these is another automatic valve in the pipe line close to the outlet. This comes into action when the faucet is broken off. Faucets should of course always be protected from possible damage and from unauthorized operation. This is sometimes secured by enclosing the rear bucket box.

A method of preventing fires and explosions being caused by static electricity in the metal parts is to "ground" the tank to the chassis, and to use a tank which has sufficient sharp corners to dissipate the accumulated charge of electricity into the air.

All of the points mentioned are covered by the tank illustrated, which has integral steel supports bolted direct to the chassis. The makers are the Columbia Steel Tank Co. of Kansas City, Mo.



Left: The Pipes Cannot Break Off or Leak—Bottom View of Tank. Right: Only One Compartment at a Time is Opened by the Emergency Valve Control, by Shifting the Operating Lever Located in the Rear Bucket Box Into Position Corresponding to the Compartment to be Emptied. Center: Emergency Valve

Moreland Six-Wheel Fast Freight

ANOTHER contribution to six-wheel transport vehicles has just been furnished by the Moreland six-wheel 5-6 ton fast freight truck. It is equipped with a four or a six cylinder engine, depending on the service for which it is intended. The total weight of truck and body with a 6-ton load is within 24,000 lbs. It can be geared for a sustained speed of 35 m.p.h. if desired.

Four rear-wheel drive, four rear-wheel brakes and a massive emergency propeller shaft brake provide unusual reserve power and exceptional braking action. The service brake acts on the four rear wheels. The propeller shaft emergency brake is operated by the usual hand lever. The brakes on the four rear wheels are equalized to assure an equal braking effort on all the wheels. The first equalization takes place on the brake cross bar located just in front of the rear wheels (see Fig. 1). The second equalization, which equalizes the brakes on two wheels of the same side, is mounted between the two wheels (see Fig. 2).

One of the special features developed by the Moreland engineers is the cylindrical vertical thrust rod, which also performs the functions of a radius rod. The lower ends of these vertical members are connected with the horizontal members through a ball and socket joint. Fig. 1 shows these radius and thrust rods in position. The horizontal member being a solid stud rigidly attached to the axle connector. Fig. 3 shows the vertical member which moves up and down in the cylindrical steel casting attached to the frame.

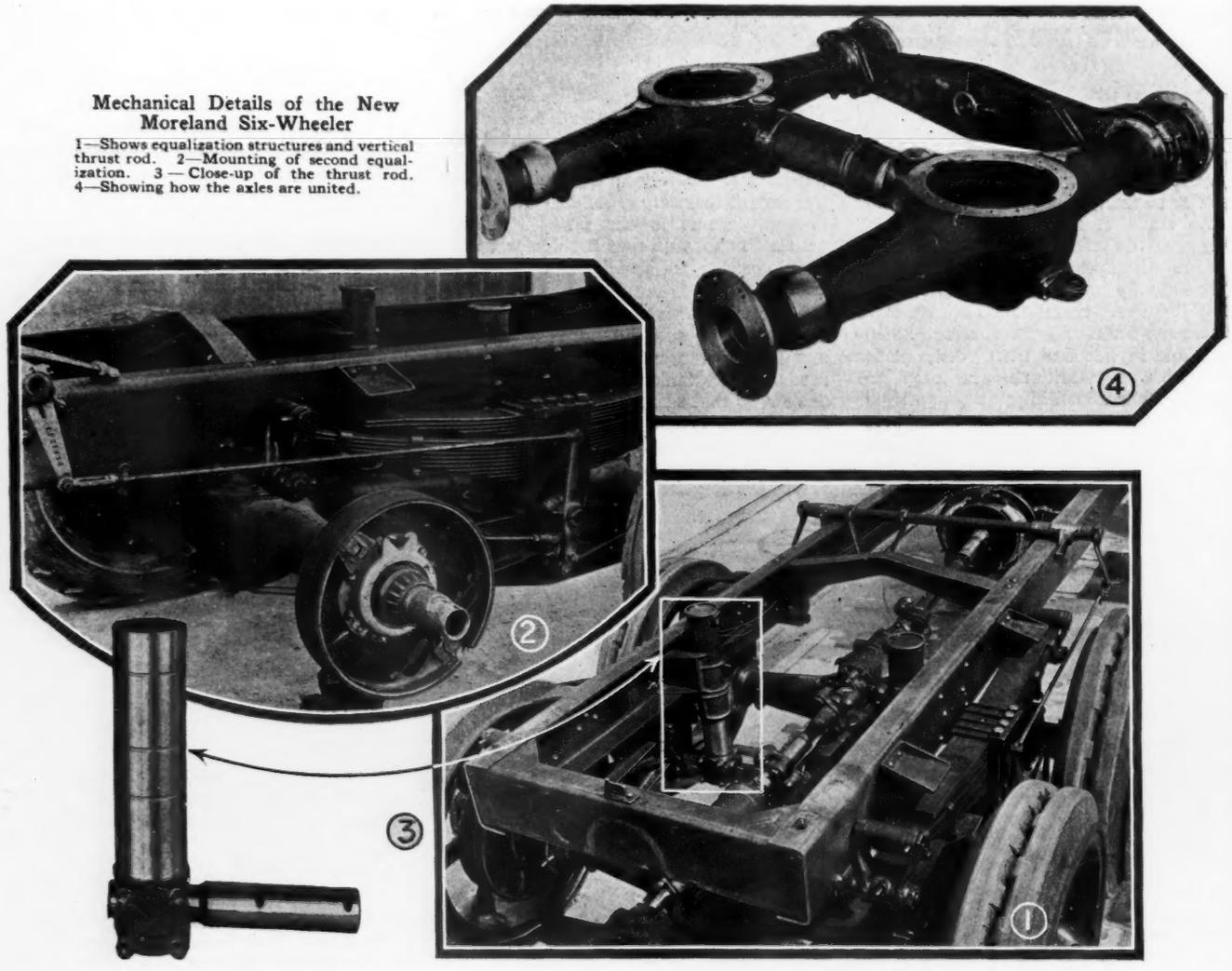
Fig. 4 illustrates how the two axles are united by axle connectors, only one of them is shown in the illustration. The view also discloses the torque rod in the center which interconnects the axle housings by a type of universal joint. All these parts, including the axle housings, are steel castings made at the foundry of the Moreland plant. The worm and worm wheel, as well as the differential gears, are Timken made. The axle connector holds the two axle housings together through ball and socket joints. The ball part of the axle housing being supported in a bronze socket which is clamped onto it by the axle connector.

Wherever admissible and advantageous, a flexible or universal joint is provided to relieve all the members of the dual axle of unnecessary stresses.

The frame channels are 8⅛ in. high, 3 5/16 in. wide and of 5/16 in. stock. The walking beam or axle connector combines solidity with strength and lightness.

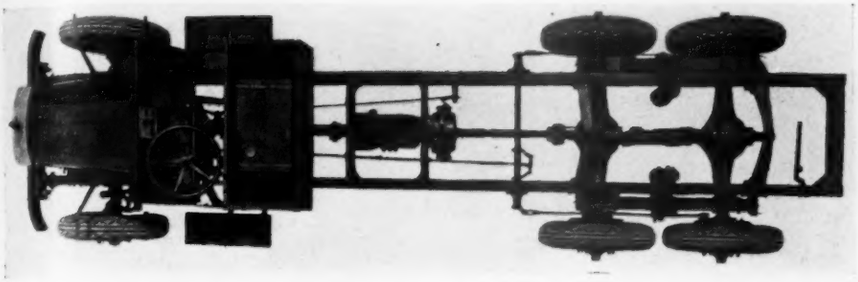
One of the special features embodied in this six-wheel truck as well as in all the heavier Moreland models, is a transmission having five speeds forward and one reverse, all operated by a single lever. This transmission is made in its entirety at the Moreland plant including the cutting of the gears and their heat treatment.

The radiators of all the Moreland



Mechanical Details of the New Moreland Six-Wheeler

1—Shows equalization structures and vertical thrust rod. 2—Mounting of second equalization. 3—Close-up of the thrust rod. 4—Showing how the axles are united.



Bird's-Eye View of the Moreland Six-Wheel Fast Freight Chassis

trucks and buses are made in sections, so that in case of damage, individual sections may easily be replaced. In fact, in case of damage on the road, no breakdown is experienced, for by loosening two bolts on the top and bottom and inserting a piece of cardboard, the damaged section is cut out. To renew sections, it is only necessary to take out a few bolts.

These 5-6 ton 6-wheelers are made for pneumatic or solid rubber tires as desired The mileage on pneumatics has been found to exceed 20,000 miles.

Motor Wheel Produces Spoksteel Wheel

The Spoksteel wheel, now being produced by Motor Wheel Corp., Lansing, Mich., for passenger and commercial vehicles, is a unique departure in wheel practice.

The use of rolled taper oval section spokes is an innovation in itself. Besides, these spokes are made of a grade of steel which it is impossible to press into disk form. The design of the wheel is such that it makes possible an even distribution of metal at every point of the wheel, providing at the same time balance and strength.

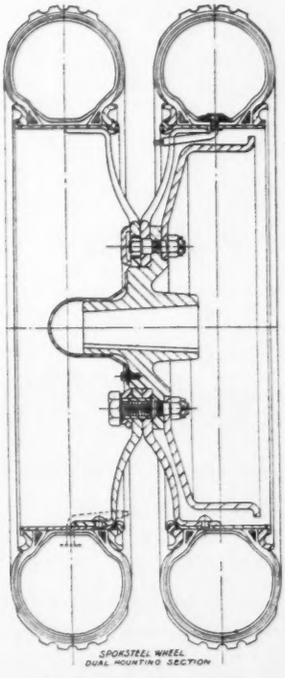
The finished wheel is of the lightest possible weight for its strength. Wheel weight is of importance in relation to tire economy. A light wheel reduces tire wear. Another obvious advantage of the light spoked construction of Spoksteel wheels is the greater convenience in mounting and demounting. It is easy to grasp the wheels by the spokes and to turn them, and the hub studs are in view as the wheel is being applied.

Another advantage is the fact that the rolled taper spokes permit maximum thickness of the hub flange. This is the basis for a positive demountable wheel drive which will stay tight with minimum of attention. The lock nuts in conjunction with the spring locking flange clamp against the hub studs, except possibly in emergencies, and then the greater thickness of the hub flange provides the largest possible driving area for the studs. The spring of the locking flange tends to keep the nuts tight and in tension.

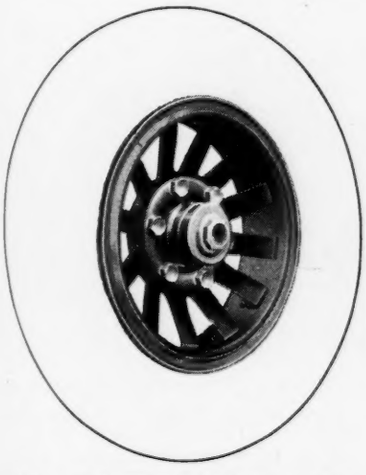
The rolled tapered oval section heat treated spokes of the Spoksteel wheel have a high elastic limit. A large deflection without permanent set is therefore possible. It is virtually impossible to fracture the spokes.

These wheels are made in the convex form for dual mounting; and in the concave form for single mounting where dual duty is not required. This latter form permits economy in hub construction.

It is manufactured to take any pneumatic tire in the 20 in. rim size, from 5 in. to 8 in. dia., either dual or single.



Section of Dual Mounted Spoksteel Wheel



The Spoksteel Wheel Assembled

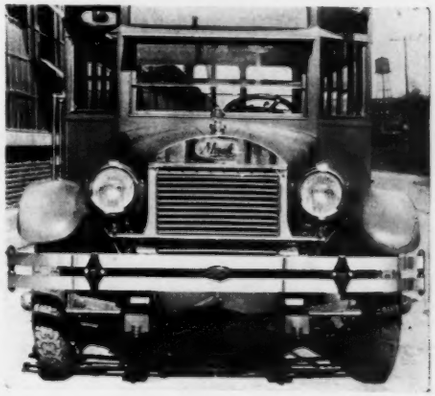
Bonney Rim Tool

Bonney Forge & Tool Wks., Allentown, Pa., is offering a rim tool that is simple, strong and efficient. Its construction is such that quick changes can be made, which feature, makes it particularly utilitarian in the shop or on the road. Since there are no complicated parts and the construction is substantial, no parts can get out of order or wear out. It is small and sufficiently compact to fit any tool box. The price is $6. It is made of tool steel throughout. The body and jaws are drop-forged and all working parts and screws are hardened.

How the Bonney Rim Tool is Used

By means of the set screws, which are shown in the accompanying illustration, in the jaws the rim is held with a firm grip. One movement contracts the rim and holds it in a contracted position until ready to be replaced. The feature of this tool is the leverage exerted on the rim. It forces half of the rim downward, then forward making the separation clean and without jamming or burring the edges of the rim.

This tool will contract any split rim including those for balloon tires. It is strongly packed and each box contains a heavy canvas bag in which the tool is kept.



Made by the American Chain Company

It is being installed by the Mack Truck Company, on its latest model of street car type passenger bus. The nickeled bumper bars are made of oil-tempered spring steel. The heavy malleable iron fittings used are strong enough to hold heavy bars against shock and vibration.

"These are action scenes from our road hauling work in Southern Pennsylvania on which we used 31 Heil Bodies and Hydro Hoists on our fleet of White Trucks."

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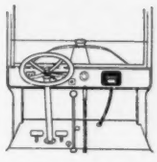
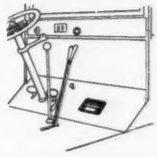
Cut Hauling Costs

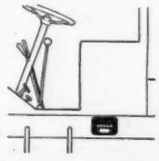


On Dash or Instrument Board



Inbuilt on Floor, With Cover

Inbuilt on Seat Support



Mounted on Frame

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